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Department of Mines



Anth acite Division

Annual Report

1949

Harrisburg Pennsylvania

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Commonwealth of Pennsylvania Department of Mines



Anthracite Division

Annual Report

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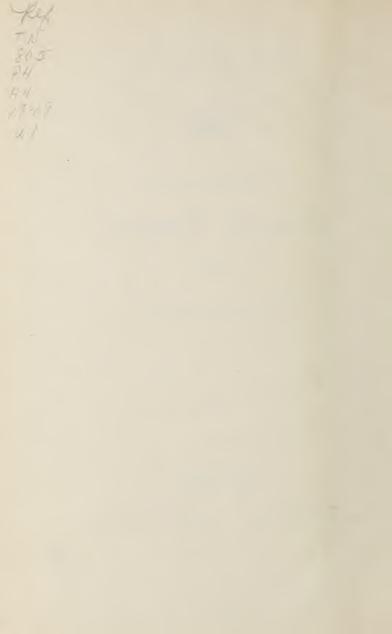
Harrisburg, Pennsylvania

Richard Maize Secretary of Mines

Joseph J. Walsh

W. Garfield Thomas Deputy Secretary of Mines Deputy Secy. Bituminous Div.







HON. JAMES H. DUFF Governor Commonwealth of Pennsylvania

Department of Mines
April 1, 1950

To His Excellency, James H. Duff, Governor of Pennsylvania

Sir:

In compliance with the Act of April 1h, 1903, I submit herewith the report of the Department of Mines for the year ending December 31, 1949, covering in detail the operations in the Anthracite Region of Pennsylvania.

Respectfully submitted,

Richard Maize, Secretary of Mines.



RICHARD MAIZE Secretary of Mines

Production, How Shipped, Average Days Worked, Number of Employee, Explosives, Fatal and 60-day Accidents, Man-days By Inspection District - 1949

		Prod	Production - net tons	et tons				Pounds				Non-fatal accidents	
Dist-	Shipped to	to market	Sold to	Used at colliery for steam	Total	: Pounds : black : powder	Pounds	permiss- ible ex- plosives	Days	Empl-	Fatal acci-	ability 60 days	
100	railioan	or now	יומת	9	production	nasn	naen	Dasn	MOLKED	oyes	dents	or more	Man-days
٦,	1,810,955	40,124	263,533	3 ,2,731	2,117,343	510,048	672,840	700,225	228	3443	1	39	784,201
2	1,121,135	84,050	198,86		1,160,695	334,625	175,205	905,475	223	2491	1	56	555,284
ς.	1,347,309	62,550	190,150		1,617,682	9,375	223,218	020,766	203	3336	~	39	678,036
М.	1,230,926	50,817	137,12		1,459,604	82,500	259,680	793,515	228	2936	N	35	670,536
9	654,555	218,972	202,320		1,081,921	1	173,038	479,775	232	1977	~	17	457,851
7	1,010,575	4,316	65,09		1,131,511	1	1,556,161	454,150	216	2539	.v	25	547,997
œ	1,000,769	68,555	75,27		1,185,918	1	45,815	951,916	155	3923	7	26	607,561
6	948,977	163,372	199,00β		1,378,596	1	254,374	830,117	506	3324	80	37	683,115
10	887,147	31,771	139,14		1,124,331	366,125	362,833	345,288	506	2361	8	017	485,92
7	1,107,869	55,681	193,000		1,432,058	21,775	609,728	612,875	221	3375	0	36	745,546
12	1,491,132	30,911	244,575		1,858,236	61,850	39,980	1,441,185	226	4291	10	36	970,787
13	1,399,269	785	313,43		1,785,283	. 1	981,125	000,496	215	4304	7/	13	925,236
77	1,637,700	108,930	177,920	1	2,014,735	1	1,049,768	1,103,810	222	4020	6	59	890,62
15	912,598	214,965	110,021		1,256,845	1	1,343,620	1,22,850	217	1965	~	18	426,213
16	1,167,414	119,837	146,768		1,373,670	1	879,075	118,325	202	2123	7	27	428,739
17	1,931,476	361,130	98,40		2,418,710	1	3,697,234	009,4729	228	3927	٣	53	896,10
18	1,842,188	185,036	78,96		2,157,096	1	1,499,450	720,262	214	1,626	~	17	989,479
19	2,010,697	861,168	203,74		3,088,863	1	1,983,513	561,743	176	3716	7	36	654,001
20	1,691,284	112,799	240,099		2,088,159	1	3,937,269	196,225	196	3431	~	23	673,747
21	928,959	595,999	64,82		1,292,611	1	181,350	474,985	214	1611	7	22	345,039
22	2,533,715	175,385	71,73		2,852,322	1	5,370,585	959,339	210	4215	9	23	885,673
23	1,615,586	458,311	72,39		2,174,517	1	2,029,375	501,634	176	3630	2	77.	638,073
27	2,288,816	515,196	141,940		2,953,144	1	1,594,607	315,276	208	2427	1	50	505,858
25	665,754	194,567	19,539		883,544	1	364,571	218,810	190	1241	2	12	235,983
56	1,538,657	172,418	12,55		1,761,205	1	1.056,827	472,450	176	2573	7	33	1,52,58
27	525,719	173,462	50,976		761,519	1	233,880	288,925	162	1101	2	10	227,972
	35, 301, 181	701.192.1	3, 588, 51,8	3 1 059 282	ר ארו סרק לו	1 386 208	רפר אלא סג	16 Rol. Rog	202	20200	00	San	26.1 696 31
		1076-0164	1000000			2,000,000	1316/1/62/	70,000,00	103	17507	76	260	10,000,00

Anthracite Production (Deep Mined, Stripping and Pank), Employes and Fatalities, By County

Year 1949

1,261,071, 561,703 1,320,129 12,785,778 2,693,813 6,539,813	639,900 639,900 652,835 911,683 1,215,420 1,215,420 5,057,259	Bank 225,706 116,134 61,389 559,631 717,701 1,221,537 1,911,228	Total production 2,126,682 1,380,732 6,221,743 15,999,846 5,200,490 13,538,194 2,200,490 13,538,194	Employes 1,120 1,760 1,760 11,702 35,040 6,009 20,047	Fatal- ities 3 3 1 1 6 60 60 2 2 2 2 18
	87,421	80,036	167,457	23 - 62	8

Compiled, typed: Ber

Total Production of Coal, & Production from Strippings & Washeries, Employes, Fatalities, Etc.

1870 - 1949

Year	Total production (net tons)	Washery production (net tons)*	Stripping production (net tons)*	Employes	Fatal- ities	Production per fatality	Fatal- ities per million tons	Number of inspec tors
	#			#	#	#	#	4
1870	14,172,004			35,600	211	67,166	14.89	#55555666666676667778
1871	15,532,252			37,488	210	73,963	13.52	5
1872	15,567,973			44,745	223	69,811	14.32	5
1873	21,001,521			48,199	264	79,551	12.57	5
1874	19,930,240			53,402	231	86,278	11.59	5
1875	23,402,646			69,966	238	98,330	10.17	6
1876	23,440,666			70,474	228	102,810	9.73	6
1877	24,727,213			66,842	194	127,460	7.85	6
1878	20,900,966			63,964	187	111,770	8.95	6
1879 1880	31,036,600			68,847	262 202	118,460	8.44 7.22	0
1881	27,974,532 34,202,558			73,373 76,031	273	125,284	7.98	7
1882	35,057,430			82,200	295	118,839	8.41	6
1883	37,747,369			91,421	323	116,865	8.56	6
1884	36,468,738			101,073	332	109,846	9.10	6
1885	38,232,155			100,320	332	109,846	8.68	7
1886	38,950,932			103,044	279	139,609	7.16	7
1887	42,156,300			106,517	316	133,406	7.50	7
1888	46,635,037			122,218	364	128,118	7.81	8
L889	43,650,768			119,646	397	109,952	9.09	8
L890	Щ,986,286			119,919	378	119,011	8.40	7
1891	49,701,322			123,308	428	116,125	8.61	7 8 8 8
L892 L893	51,226,978	4		130,300	418 456	122,553	8.16 8.63	8
1894	52,841,110 50,966,920	386,960		138,069 139,939	456	115,880	8.75	8
1895	56,948,756	686,534		143,705	421	135,270	7.39	8
1896	53,843,250	527,809		150,088	502	107,257	9.32	8
1897	52,581,036	732,743		149,557	423	124,305	8.04	8
1898	52,812,675	697,759		149,557	411	128,498	7.78	8 8 8
1899	60,518,331	1,055,426		140,604	461	131,276	7.62	8
1900	57,363,396	1,818,170		143,824	411	139,570	7.16	8
1901	67,094,665	2,009,864		147,651	513	130,789	7.65	8
1902	41,340,935	2,965,792		148,139	300	137,803	7.26	8
1903	75,232,585	4,119,258		151,827	518	145,237	6.89	15 15
1904	73,594,369	3,440,420		161,330	595 644	123,688	8.08 8.19	15
1905 1906	78,647,020 72,139,510	3,897,688 4,880,402		168,254 166,175	557	122,123	7.72	19
1907	86,056,412	5,630,169		168,774	708	121,549	8.23	20
1908	83,543,243	4,635,923		174,503	678	123,220	8.12	20
1909	80,223,833	5,206,562		171,195	567	141,488	7.07	20
1910	83,683,994	5,412,167		168,175	601	139,241	7.18	20
1911	90,917,176	4,555,457		173,338	699	130,067	7.69	21
1912	84,426,869	4,317,161		175,098	601	140,477	7.12	21
1913	91,626,964	2,934,157		175,310	624	146,838	6.81	21
1914	91,189,641	2,702,537		180,899	600	151,983	6.58	21
1915	89,377,706	3,418,427		177,339	588	152,003	6.58	21
1916 1917	87,680,198	4,432,606		159,169	565 581	155,186	6.14. 5.78	25 25
1917	100,445,299 99,445,794	6,408,277 7,246,454		156,148 148,226	556	178,859	5.59	25
1919	87,838,024	3,616,675		153,780	636	138,110	7.24	25
1920	89,636,036	5,435,697		149,117	490	182,931	5.47	25
1921	90,358,642	1.842.096		161,926	546	165,492	6.04	25
1922	53,910,201	1,842,096 2,525,402		159,880	300	179,701	5.56	25
1923	92,653,641	4,212,001		158,764	515	179,910	5.56	22
1924	87,277,449	1,141,796		162,503	496	175,963	5.68	22

Total Production of Coal, Production from Strippings & Washeries, Employes, Fatalities, Etc.

1870 - 1949

Year	Total production (net tons)	Washery production (net tons)*	Stripping production (net tons)*	Employes	Fatal- ities ities	Production per fatality	Fatal- ities per million tons	Number of inspect- ors
1925	61,334,145	894,187		163,825	401	152,953	6.54	18
1926	83,874,500	1,365,175		168,734	455	184,340	5.42	18
1927 1928	79,367,154	1,841,440 1,614,863		167,648 160,721	492 447	161,315	6.20 6.00	25 25
1929	72,985,844	878,599		153,422	447	151,109	6.62	25
1930	68,776,559	890,389		151,171	1414	154,902	6.1,6	25
1931	59,115,387	1,468,572	%	138,400	384	153,946	6,50	25
1932	49,501,511	1,062,858	3,545,948	119,480	243	203,710	4.91	21
1933	49,507,577	2,090,996	4,308,811	102,469	232	213,395	4.69	21
1934	56,798,951	1,516,393	4,461,894	106,251	260	218,458	4.58	19
1935	51,359,111	1,876,700	4,962,514	100,539	267	192,356	5.20	17
1936	54,264,016	1,411,988	3,757,678	99,704	241	225,162	4.44	16
1937	51,700,296	1,882,026	5,014,052	99,117	212	243,869	4.10	22
1938	46,269,511	2,031,432	5,080,344	96,998	223	207,487	4.82	20
1939 1940	51,399,707 51,526,454	2,347,269 2,599,280	5,308,049 6,010,364	93,352	210 182	244,761	4.09	24
1941	53,942,177	3,689,538	7,855,945	90,790 88,849	189	283,112 285,408	3.53 3.50	23 22
1942	57,939,629	4,045,970	9,657,307	83,707	225	257,509	3.88	22
1943	60,511,730	7,715,860	8,688,896	79,369	218	277,577	3.60	23
1944	64,112,589	10,527,481	10,925,619	78,145	171	374,927	2.67	24
1945	55,901,235	9,454,205	10,521,174	76,265	137	408,038	2.145	23
1946	61,978,710	9,214,678	12,912,992	80,556	169	366,738	2.73	24
1947	58,227,985	7,076,796	12,691,382	80,730	165	352,897	2.83	24
1948	59,108,810	6,735,688	13,485,837	80,390	131	451,212	2.22	26
1949	44,710,118	4,823,144	11,081,087	79,209	92	485,980	2.06	26

Ber

^{*} Included in total production # No accurate record previous to 1870 # No accurate record previous to 1894 % No accurate record previous to 1932

COLMONWEALTH OF PENNSYLVANIA DEPARTMENT OF MINES Anthracite Division

Tons of Coal Mined, Days Worked, Persons Employed, Killed & Injured, Explosives, Etc. Year 1949

FIRST DISTRICT

J. F. Munley, Inspector 166 Spruce St., Archbald, Pa.		Produc	Production - net tons	t tons				Pounds			N o	Non-fatal accidents
		-	Sold	Used at		Pounds:		permiss-				dis-
	: Shipped to market	market:	to	colliery		: black	Pounds	tble ex-				bility
	: By	By :	local	for steam	Total	: powder	dynamite	plosives	Days	Empl-	acci-	60 days
Operators & Collieries County	r : railroad	truck:	trade	and heat	production	pesn :	pegn	nsed	worked	oyes	dents	or more
A. & F. Coal Co.												
Mine	3,386 mm	10,158	1	1	13,544 (a)	875	6,150	10,000	218	13	1	1
Alberig Coal Co.												
Wine (b) "	335	1	1	,	335 (d)	1	1	ፚ	53	7	1	1
Blasi Coal Co.												
Mine	6,226	1	1	1	6,226 (d)	1	100	2,000	225	10	1	1
Booth, John, Inc.	•				•							
Stripping	168,586	1	1	1	168,586 (d)	1	183,950	1	239	2	1	1
Botscheller Coal Co.												
Stripping	6,877	1	1	1	6.877 (e)	1	1	250	85	80	1	1
Burke, Timothy, Inc.												
Stripping	47,618	1	1	•	17.618 (d)	1	118,090	1	293	29	1	1
DeAngelis Coal Co.									:			
Bolands (B) "	170,968	1	20,151	200	191,319 (R)	1	6,825	33,900	212	237	ı	80
Dewees Bros.												
Stripping	23,695	1	1	1	23,695 (d)	1	170,000	1	263	37	١	1
Dwonczyk Coal Co.												
Mine	13,675	1	1	1	13,675 (d)	1	125	1,700	180	50	1	1
Eddie & Joe Coal Co.												
Mine	19,500	526	1	1	19,726 (c)	12.548	2,392	26,600	162	39	1	-
F. & W. Coal Co.												
Wine	1,374	2,062	1	•	3.h36 (f)	•	625	200	2η2	00	•	1
Casparini Stripping Co.												
Stripping	2,096	1	1	1	2,096 (d)	1	1	1	7	9	1	1
Gateway Coal Co.												
Forest City (B) Susquehanna	a 166,026	1,431	1	1	167.457 (h)	1	8,200	3,500	295	74	1	•

FIRST DISTRICT, CONTINUED

Non-fatal	dis- fatal ability	or more	1	ı	1	v	٠,٦	a '	17	1	ı	1	٦	10	1	١	ı	1	1	1
Z	Fatal	dents	- 1	1	1	1	1	н 1	7	'	1	1	- 1	1	1	1	1	1	1	1
	Fatal	oyes	8	22	8	31,7	7	277	1836	19	53	20	83	1111	9	102	οħ	77	7	55
	1	worked	509	218	212	212	212	222		2412	196	230	179	175	196	417	212	191	160	232
Pounds	permiss-	pesn	5,250	1,200	12,100	001,111	50,125	143,975 -	305,200	1	5,150	. 1	15,825	154,300	1	16,700	31,800	6,000	5,725	16,500
	Pounds	used	325	1	375	18.615	7,279	26,136	52,060	31,000	2,060	75	11,175	26,250	ı	15,400	7,420	300	225	7,500
	Pounds	nsed		,	ı	100		445,450	145,550	1		525	53	7,000	,	1,200	ı	300	1	ı
	ı ·	: uo	(d)j)	(p)	(p)	(9)			-	(g)	(p)	(d)k)	3	(H		(n)	(p)	(£)	(F)	<u>©</u>
TINGED	- to	production	17,610 (d)j)	15,229 (d)	33,255 (d)	180.505	85,821	569,002	891,901	17,802 (d)	16,209 (d)	13.0h9 (d)k)	39,786 (1)	218,618 (m)	1	30,731 (n)	26,054 (d)	4,152 (f)	2,963 (f)	30,085 (0)
first District, Continued	Used at colliery	and heat	1	1	,	,	1			1	,	ı	228	200	1	979	1	ı	ı	1,75
Production - net tons	Sold	trade	- 1	ı	1	110.66	18,016	82,394	146,786	,	,	ı	16,266	68,100	ı	1,20	ı	1	1	4,750
Produ	to market	truck :	1	,	,			٠,	-	,	,	1	,	ı	1	6,218	1	622	1,781	17,205
	Shipped to market	railroad	17,610	15,229	33,255	157,591	67,805	33,108	745,115	17,802	16,209	13.049	23,292	150,018	1	23,114	26,054	3,530	1,182	7,655
		1	Lacka.	E	ž	ε	E :			=	E	E	×	ε	ĸ		ε	=		E
		Operators & Collieries County	Gianforcoro Coal Co.	Mine	Gillen Coal Co.	Hudson Coal Co.		Olyphant (B) Powderly (B)	Total for Co.	Masters Coal Co. Stripping (1)	Mazzoni Coal Co.	M. & M. Coal Co.	Motley Coal Co. Erie (B)	Northwest Coal Co. Raymond (B)	Penbrook Coal Co. Breaker (B)	Pioneer City Coal Co. Racket Brook (B)	Mine	Mine	Mine	Northwest (B)

FIRST DISTRICT, CONTINUED

Non-fatal

			Product	Production - net tons	tons				Pounds			380	accidents
			-	Sold	Used at		Pounds		permiss-				dis-
		: Shipped to market	market :	to	colliery		black	Pounds	tble ex-			Fatal ability	bility
		By	By :	local	for steam	Total	: powder	dynamite	plosives	Days	Emp1-	acci-	acci- 60 days
Operators & Collieries County	County	: railroad	truck :	trade	and heat	production	nsed	nsed	nsed	worked	oyes	dents	or more
Slenska Bros.													
Stripping (p)	Lacka.	7,025	121		•	7,446 (e)	•	•	750	172	٧.	ı	ı
Supreme Anth. Co.		1		1						ć			
Breaker (B)	=	1,057		1,572	ı	3,229 (q)	ı	1		53	5		ı
Surace, F. L.					i					;			
E. & A. (B)		1,273	,	3,038	85	h,396(t)	ı	ı	ı	225	12	ı	•
Tolerico Stripping Co.													
Stripping	E	14,142	•	1	1	14,142 (r)	1	1,375	ı	282	28	ı	•
Waddell Coal Co.													
Waddell (B) (W)	=	33,382	-	2,450	264	36,096 (s)	13,050	20,543	42,225	233	19	-	•
		-		1		0	0 0 0	0 000	0		0 1 10	,	6
Grand total		1,810,955 40,124	40,124	263,533	-	2,731 2,117,343	510,048	510,048 672,840 (00,225	700,225	-	2443	4	2
(B) Breaker					_	1) Includes 16,750 tons of stripping coal,	750 tons	of strippi	ng coal.				
(W) Washery					,_,	m) " 31	31,274 "	=	=				
(a) Coal prepared at Penbrook breaker	nbrook br	reaker			_	n) " 14,	" 810,	=	=				
(b) Discontinued operation in February	ton in Fe	ebruary				ητ " (o	14,042 "	E	=				
					,								

Discontinued operation in February (W) Washery
(a) Coal prepared at Penbrook breaker
(b) Discontinued operation in February
(c) Coal prepared at Motley & Maddell

Coal prepared at Motley & Waddell breakers (1st dist.) & Consagra & Pompey breakers (2nd dist.)

(d) Coal prepared at Forderly breaker, of Hudson Coal Co. (e) " " A Diands and E. 4. breakers (f) " " A Coal breaker, 2nd dist. (g) Includes 95µ/3 tons of stripping coal of Coal prepared at Forderly, McCley, Maddell (1st dist.) (h) Coal prepared at Forderly, McCley, Maddell (1st dist.)

(i) Discontinued operation in August. (j) Includes 1,334 tons stripping coal. (k) " 12,085 " " " "

(Mines, Strippings, Banks, Breakers) 33 Operators in district 36 Operations " (Mine 2μ Mines

Coal prepared at Powderly, Motley, Pompey (2nd) & Meadowside (3rd)

Stripping coal. Bank coal

Discontinued operation in September. Includes 8,560 tons stripping coal

C O A O A O A

1,427,463 tons 606,615 " 83,265 " ı Deep mined coal Stripping Bank

8

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ENCO	3
THUNGS	3

Non-fatal	dis-	Fatal ability	or more	8	٠	٠			1			ı	1	ı	ı	ì	1	1	5		12	
ž	á	Fatal 8	dents	- 1	- 1	1	1	ı	ı	1	1	ı	1	1	1	1	1	1	1	1	1	1
			oyes	젃	6	10	12	ν.	11	18	7	13	25	7	13	7	7	24	77	17	9771	N
			worked	174	971	59	198	132	181	21/17	83	977	98	115	182	12	167	224	188	220	216	193
Pomode	permiss-	ible ex-	pesn	21,650	2,875	375	8,875	1,875	3,625	ı	ı	1	1	125	10,125	1	2,350	28,250	7,725	8,000	276,375	900
		Pounds	aynanite	6,550	200	,	ı	ı	1,250	006,9	150	29,500	1	R	875	ı	1	1,250	ı	2,150	19,269	300
	Pounds	b.lack	powder	2,325	,	1	1	1	1	1	1	1	1		,	1	,	1	1	250	294,275	1
			production :	11,170 (y)	2,823 (a)	832 (a)	7,953 (a)	1,562 (a)	3,906 (c)	28,789 (d)	3,855 (f)	8,058 (h)	٠	1,834 (a)	7,520 (a)	732 (c)	3,865 (a)	14,662 (c)	7,281 (a)	11,049 (j)	666,414 (k) 294,275	1,896 (a)
++000	Used at	colliery	and heat	105	ı	1	ı	1	ı	ı	ı	ı		1	1	ı	ı	ı	ı	ı	53,313	ı
Dangt ten nottonbond	Sold	to	trade	2,112			ı	ı	,	ı	1	ı	1	ı	1	1	ı	ı	ı	ı	396,962	ı
Danding	· ·	o market :	truck :	4,527	254	75	716	312	586	11,803	1,157	4,835	1	550	677	ı	348	2,199	655	7,824	ı	171
		: Shipped to market	: railroad	4,426	2,569	757	7,237	1,250	3,320	16,986	2,698	3,223	ı	1,284	6,843	732	3,517	12,463	6,626	3,225	513,139	1,725
	£	anton	County	Lacka.	=	=	E	E	=	=	E	ε	E	E	ε	r	ε	=	E	E	E	E
	T. L. Wackley, Inspector	1801 N. Wash. Ave., Scranton	Operators & Collieries	Ace Coal Co. Ace (R)	A. F. & L. Coal Co.	Albanese Coal Co.	Mine	Mine	Mine Wine	Stripping Stripping	Butler Stripping Co. Stripping (e)	Stripping (g)	Consagra Coal Co. Breaker (B)	Costanzo Coal Co.	Fabri Coal Co.	Gasparini Stripping Co. Stripping (1)	Wine A. Coal Co.	Mine Coal Co.	Wine Coal Co.	Mine Kine	Eddy Creek	Mine Mine

Non-fatal	dis-	Fatal ability	or more		ı	1	ı	-			1	,		,		ı	80	ı		7	١	ı	ı	1	1	1	1
Z q	5	Fatal	dents		1	1	ı	1	1	•	1	1	1	1		ı	1	ı		1	ı	1	1	- 1	1	- 1	1
			empt-		7	7	8 r	7	25	8	-	9	28	80	o	Ö	563	15	ì	516	9	12	80	큐	17	7	18
			worked		187	20	 ₹ 7	777		152	78	98		163		113	216	256	}	556	81	197	120	66	226	21	187
Pounds	permiss-		prosives		1,750	1	ı	1		,	1	1	1	1	000	000	235,850	1		146,300	1	5,325	200	1,525	26,800	1	8,000
		Pounds	aynamite		009	75	1 5	250	250	1	ı	6,350	6,350	1	Č	99	1	53.036	200600	140,575	700	225	7100	1	3,800	1	
	Pounds	black	powder		ı	ı	ı			ı	ı	1	1	ı		1	1	ı		37,775	ı	1	1	1	1	1	ı
			rotal :		2,664 (a)	2,009 (1)	100	2,094	3,094	1	1,13	977,7	5,580	102,242 (n)	17 000 0	(0) 2016	253,799 (p)	60.787 (a)r)	(- (b)	115,660 (y)	2,915 (h)	8,160 (a)	2,152 (c)	2,541 (d)	18,608 (4)	(0) 959	7,12h (a)
t tons	Used at	colliery	ior steam		1	1	ı	1	-	1	ı	1		1		ı	3,078	ı		150	1		1	ı	1	1	1
Production - net tons	Sold	د د	trade		ı	١	ı			1	1	1		1		ı	90,822	1		5,968	1	1	1	1	ı	ı	1
Product		to market :	truck:		240	603	1 22	11.0	1//4	,	1	7000	700	1		ı		ı		11,554	1,749	734	323	1,042	7,629	1	149
		: Shipped t	: by:		2,424	1,406	0000	6,320	2,320	1	1,134	970,4	5,180	102,242	000	20162	159,899	60,787		94,988	1,166	7,426	1,829	1,499	10,979	959	6,483
			Operators & Collieries County	M. & C. Coal Co.	Mine Lacka.	McConnell Stripping Co. Stripping H	Breaker (B) "	(m) Surdarine	Total for Co.	Breaker (B) "		Stripping "	Total for Co.	Nay Aug Coal Co. Breaker (B) "	Ondrick Coal Co.	Mine Pennsylvania Coal Co.	Underwood (B) "	Perry Construction Co. "Stripping	Pompey Coal Co.	Pompey (B)	Stripping "	Mine "	Mine (s) "	Rosetti Coal Co. "	Sobleskie Coal Co.	Sweeney Bros. Co. Stripping (g) "	Mine Mine

SECOND DISTRICT, CONTINUED

Mon-fotal

		Produc	Production - net tons	et tons		Pounds		Pounds permiss-			. m	accidents
	Shipped t	to market	to	colliery	•••	black	Pounds				Fatal	ability
	By	: By By: local for radlroad truck : trade ar	By : local	for steam	Total :	powder	dynamite		Days		acci-	Empl- acci- 60 days
	2,414	0917		1	2,87h (u)		22	1,225	171	89	1	•
	ין נא	17 150	1		(A) (A)		240	טטט נטנ	171	טננ		(
	00000	007617		1	(a) am'm		27	200,6101	1	211	1	
	1,414	569	1	1	1,683 (u)	1	20	2,700	186	7	ı	1
	8,851	3,793	1	•	12,6hh (w)x)	-	200	575	211	12	1	ı
1												
Н	121,135	84,050	198,864	56,646	334,625 175,205 905,475	334,625	175,205	905,475		2491	1	59

	O
	hon
	nononond
ker	2
Breaker	Con
(B)	(0)

- d at Moosic Min. breaker Discontinued operation in May
 - Coal prepared at Pompey breaker

 - Coal prepared at Mid Valley breaker Discontinued operation in April Underwood " EXTERPESS
 - Discontinued operation in January Discontinued operation in June Coal prepared at Ace breaker
- Penbrook (1st), Ace (2nd), Meadowsiee & Coal prepared at Penbrook (1st district) & Ace breakers. Marvine breaker, 5th district. Minichello (3rd).
- Consagra & Mid Valley (2nd) & Meadowside (3rd) Ace. Consagra, Pompey, " "Minichello" w) " Ace, Consagra, Pompey, " "Minichel x) Includes 6,238 tons stripping and 4,320 tons bank coal Coal prepared at Consagra breaker E

Includes 27,109 tons silt, prepared at Central Concentrated breaker (6th)

Discontinued operation in March

Bank coal

Includes 946 tons bank coal, prepared at Bolands breaker (1st dist.)

Formerly known as #1 Line, operated by Wispi Coal Co. Coal prepared at Powderly breaker, (1st dist.) Coal prepared at Waddell breaker (1st dist.)

Formerly operated by Touch Coal Co.

Mine coal

(Mines, Strippings, Banks, Breakers)

120,633 11,204,311 Deep mined coal Stripping Bank

³⁹ Operators in district 42 Operations "

		Produc	THIRD DISTR. Production - net tons	- net tons		Pounds		Pounds				Non-fatal accidents
Shipped to market By By	91	By :	to local trade	colliery for steam	Total :	black	Pounds dynamite	ible ex-	Days	Empl-	Fatal acci-	ability 60 days
250 5	1	000			(2) 000 6			000	70	5		
11267		2,3736	ı	ı	19707 (a)	1	2000	200601	100	17	ı	1
53,295		1	ı	1	53,295 (t)	ı	ı	1	272	23	1	١
6,037		1	1	1	(q) LEO*9	ı	ı	1,,000	216	12	1	1
36,298	_	504,6	1	1	42,703 (c)	1	25,693	1	294	35	1	1
134,443	4	569,44	67,131	10,01	256,870 (u)	00066	18,175	145,000	208	973	1	11
11,604		1	ı	15	11,619 (d)	ı	1,000	10,225	245	917	1	1
11,655			ı	ı	11,655 (b)	1	ı	7,875	207	19	1	1
105	'n	3,808	1 1	1 1	142 (u) 14,433		500	13,900	841 841	12	- 1 1	1.1
10,730 3,	3,	3,845	1	1	14,575	1	2,500	14,000		55	1	1
- 701,9	. '		1,235	ı	7,342 (t)	1	1	1	127	21	1	
124,887 -	- 1		8,163	2,995	136,045 (e)	375	5,625	43,375	207	214	1	2
69,32h -	1 1		5,200	1,483	76,007 (f)	1 1	275	81,000	207	112	1 1	۱ ٦
584,245 -	ı		78,474	1,846	664,565 (f)	ı	53,925	521,775	206	1066	П	19
- 351	1 1		6,147	152	54,597 (f)	1 1	80,925	1,000	207	27	1 1	1 1
826,785 -	'		98,316	6,481	931,582	-375	140,750	647,150		1432	7	22
5,220 -	'		ı	ı	5,220 (t)	1	ı	1	21/1	22	1	1
24,209	'		20,725	56	(g) 066,444	ı	3,750	19,720	137	317	1	9
2,321		,	1	ı	2,321 (h)	ı	100	1,800	34	27	1	1
1,671		,	١	1	1,671 (d)	1	100	800	œ	89	1	1
3,779		,	1	1	3,779 (j)	1	ı	ı	42	80	1	ı

CONTINUE
DISTRICT
E E

		Product1	Production - net tons	tons				Pounds			ø	accider
	: Shipped to market	o market :	Sold	Used at colliery		Pounds	Pounds	permiss- ible ex-			Fatal abilit	dis-
Operators & Collieries County	: By : railroad	By : truck :	Local	for steam and heat	Total : production :	powder	dynamite used	plosives	Days	Empl-	acci-	or 05
Rhonda Coal Co. Breaker (B) Lacka.	83,775	1	,	1	83,775 (4)	,	1	1	222	25	1	'
Snyder Coal Co. "	21,760	ı	ı	20	21,780 (k)	- 1	200	32,500	212	%	- 1	- 1
Sproul Construc. Co. Bank (q)	10,137		1		10,137 (1)	1	ı		04	8	- 1	- 1
Arroop Mining Co. Mine Bank Bank Stripping "	1,66 6,307 2,010	89 1,201 383	1.1.1	1 1 1	555 (m) 7,508 (m) 2,393 (m)	1 1 1	125	1,000	38 88	9 16	1 1 1	1 1 1
Total for Co.	8,783	1,673	-	1	10,456	1	125	1,000		37	1	1
Turnpike Coal Co. Mine Stripping " Total for Co.	34,882 20,390 55,272		1 1	1 1	34,882 (n) 20,390 (n) 55,272	1 1 1	13,500	72,000	213	23.55	1 1 1	1 1 1
West Slope Coal Corp.	154,16		2,743	200	34,694 (f)	1	125	31,000	207	R	'	
Grand total	1,347,309	62,550	190,150	17,673	1,617,682	9,375	223,218	070,799		3336	~	39
(a) Coal prepared at Penbrook (1st) and Meadowside (3rd) (b) "Pompey (2nd) (c) "Radell (1st)" Minichello (3rd) (d) "Radell (1st)" Minichello (3rd) (e) "Radell (1st)" Minichello (3rd) (f) "Radell (1st)" Minichello (3rd) (f) "Radell (1st)" Minichello (3rd) (f) "Maker and Moffat breakers (3rd) (f) "Morphwest (grad by Northwest Coal Co., (1st) (f) Operated by Northwest Coal Co. to December, then by Penn Anth. (d) Coal prepared at No. 9 breaker (6th) and Harry E. breaker (9th) (u) Wine coal	Penbrook (1st) and Meadowside Olyphant (1st) Fompey (2nd) Raddell (1st) Minischello Baker and Moffat breakers Gothwest " of Simps Wid Valley " of Simps west Coal Co. to December, the No. 9 breaker (6th) and Harry	eadowside (3rd) initchello (3rd) akers (3rd) a G Simpson Coal Co., (1st) ember, then by Penn Anth. and Harry E. breaker (9th)	oal Co., Penn Ar	(lst) th. 9th)	(k) Coal prepared at Underwood breaker (2nd) (l) " " Marvine (1st), Consagn (m) " " Penbrook (1st), Consagn (n) " " Underwood, Consagn & Fro (o) Formerly operated by Supreme Anthracite (p) Maintenance men (q) Discontinued operation in April (r) " " " " " " " " Rebruary (s) " " " " " " May	pared at	Coal prepared at Underwood brea " " Radvine and Minchello " " Underwood, Com Formerly operated by Supreme An Maintenance men " " " " " " " " " " " " " " " " " " "	Coal prepared at Underwood breaker (2nd) " Marvine " (5th) " Penbrook (1st), Consagra (2nd), Meadowside and Mintchello (2xd) Promerly operated by Supreme Anthracite Co. Minterance men " Rebrusty Bank coal " Hay	nd) th) agra (2nd & Pompey te Co.	1), Mee (2nd)	dowsid	Ф
21 Operators in district 30 Operations "					Deep mined coal Stripping " Bank "	oal	1 1 1	1,311,742 138,663 167,277	742 563 277			

FIFTH DISTRICT

			Product	Production - net tons	t tone				Pounds			ON a	Non-fatal
T. D. Rees, Inspector	ć	Chd was d	+01	Sold	Used at		Pounds	9	permiss-			5	dis-
Kelle L, Box 54, Scranton, Fa.	on, ra.	By By	By :	local	for steam	Total :	Dowder	dynamite	plosives	Days	Fmp1-		60 days
Operators & Collieries	County	: railroad	truck :	trade	and heat	production :	nsed	nsed		worked		- 1	or more
Bellevue Coal Co.													
Silt Bank #	Lacka.	24,468	1	1	•	24,468 (a)	1	1	•	81	80	ı	1
Mine	E	17,871	1,690	5,500	201	25,302 (b)	•	1,100	30,800	183	57	1	٦
red.								,					
Parkside (B)	t	Ļ	1	1	1	1	•		1	135	7	1	t
Gravity Coal Co.	=	18 1.30				18 1.30 (2)				801	-		
Harris & Walsh		OC#601	ı			To,430 (c)		•	1	200	7	ı	ı
Bank *	E	9,637	ı	268	1	9,905 (d)	1	•	1	671	7	1	1
Greenwood Mining Co.													
Mine	E	22,172	1	1,938	1	24,110 (e)	1	3,500	47,725	212	25	•	٦
Suripping	E	2,786	-	612	-	3,398 (e)	1	250	1	衣	9	1	1
Total for Co.		24,958		2,550	1	27,508	1	3,750	47,725		58	1	1
Hudson Coal Co.													
Marvine (B)	E	202,158	1	147,681	15,495	265,334 (")	•	17,425	160,750	217	212	ı	7
Mine Coray Coal Co.	=	1 31.8	1,60	000	0	1 006 (1)			י אבט	182	,		
Kehne-Berge Coal Co.		04067	107	270	77	1,026,10)			7,000	707	-		
William A (B)	Luzerne	1,6,31,7	7.802	10,333	1,37	(") 616 (1)	•	5.575	111.750	112	250	١	-
33	t			-		60,240 (f)	1		•	110	0	ı	1
No. 10 Tunnel	E	52,802	8,888	11,772	161	73,959 (f)	1	13,275	62,000	210	190	1	7
Stevens & No. 11	E	39,954	6,726	8,907		$\overline{}$	1	9,400	66,750	112	123	•	٦
Fox Hill Stripping	E	12,822	2,158	2,859		\sim	1	1	38,000	87	16	ı	1
e1]	Lacka.	24,709	4,159	5,509		$\overline{}$	1	ı	001,84	217	29	1	٦
" Stripping	=		625	828			1	2,000	1	9	۲:	1 :	1
Mosca	Luzerne		7,985	6,599			1	54,100	,	222	궃.	-1	•
Hunter Stripping	ŧ:	10,025	1,688	2,235			1	1	2,500	112	S.	ı	ı
Pittston "	E 8	5,557	935	1,239		7,783 (f)	1	1	2,000	۲,	17	ı	1
Seneca Bank		OTO	-		-		1	-	-	777	2		•
Total for Co.		286,578	37,963	50,281	2,124	376,946	1	84,350	264,400		740	1	7
Construction Co.													
Coray Stripping Sibley "	Lacka.	12,564	1,906	3,028	177 676	17,675 (g) 68,623 (h)	1.1	4,300	1 1	25 <u>1</u>	12	1.1	1 1
Total for Co.		60.531	7,999	216.91		86.208		089.66			1		
		-	-	-	-	- 1-1	-		-		-		-

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				(Non-fatal	atal
		Prod	Production - net tons	net tons				Founds			accidents	ente
	*	4	: Sold	Used at		Pounds	0	permiss-		Ŕ		dis-
	By By By	By	: local	for steam	Total	powder	dynamite	plosives	Da ys	Empl- ac	acci- 60 day	60 days
Operators & Collieries County	: railroad	truck	: trade	and heat	production :	peen	nsed	nsed	worked	oyes de	dents or	or more
Lockett Coal Co.												
Mine Lacka.	1,968	1,75	1,512	89	7,023 (b)	1	675	700	182	12	1	1
L. J. Minichello Coal Co.												
Bank % "	388	1	166	17	571 (1)	1	1	1	7	w	1	1
Moffat Coal Co. Interests												
Moffat (B) "	1	1	1	1	•	1	1	1	203	211	1	1
Archbald Shaft	71,335	1	1	3,074	74,409 (1)	375	2,500	16,250	202	130	7	2
Continental Slope "	149,676	1	1	6,141	156,117 (3)	3,500	750	277,111	506	21/2	7	9
Hyde Park	148,616	1	1	2,117	50,733 (1)	- 1	1	64,125	207	66	1	1
Pyne	100,096	1	1	4,502	108,598 (1)	9,375	53,100	- 1	207	229	1	7
Taylor	114,825	1	1	846.4	119,773 (1)	69,250	39,600	1	207	234	7	20
Pyne Stripping "	1,5,149	,	490.9	143	51,356 (k)	- 1	2,900	925	207	16	1	1
National " "	6,352	1	853	50	7,225 (k)	1	900	200	262	9	1	1
Taylor "	3,575	-	7,80	11	1,066 (k)	4	1	1,155	65	12	1	1
Total for Co.	543,624	1	7,397	21,256	572,277	82,500	104,750	194,930		1179	η.	50
Mountain Slope Coal Co.									,			
Mine	6,0ld5	617	1,917	42	8,658 (1)	1	009	12,000	198	17	1	ı
O										1		
Morgan (B) "	1	1	1	1	•	1	1	1	264	52	1	1
Panzitta Coal Co.	,,	0	100	C	11, 00		000	1.0 800	700	ac		
wine wolsh	10,9/1	1,212	T, OUL	36	(m) tht (n)	1	14,000	45,000	077	2	1	1
Strange of a	1150	330	166		1.657 (n)	1	1,25	1	1,3	v	1	1
Schuster Coal Co.												
Mine	9,833	1	1	1,28	10,261 (3)	1	3,300	29,750	207	17	1	5
Standard Breaker Corp.												
Standard (B) "	1	1	1	1	1	ı	1	ı	100	15	1	ı
V. CORI CO.	,,,,,	000	ì	3	7 700 0		200	0.00	ď	ç.		
Mine	1,950	300	280	000	7,090 (0)		-010	0-210	6	7		1
Grand total	1,230,926	50,817	137,124	40,737	1,459,604	82,500	259,680	793,515		2936	2	32
(B) Breaker												

(g) Coal prepared at Parkside (5th), Number Wine (6th), Worgan (5th), Kirz (9th) and Winers Wills (10th)

(h) " " Morgan, Old Porge and Number Wine

(i) " " Minichallo (3rd)

(j) " " Markser (3rd)

(k) " " Morfat (5th) (a) Coal prepared at Bellevie Washery (3rd)
(b) "morgan and Old Forge (5th) and Number Nine (6th)
(c) Coal sold unprepared (1st), Minichello (3rd) and Marvine (5th)
(d) Coal prepared at Weddell (1st), Minichello (3rd) and Marvine (5th)
(f) " " " William A (5th)

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Operators & Collientes County	1	Shipped to market By By ailroad truck	Produc : market : By : truck :	Production - net tons Sold Used (tet : to collidate) By : local for study (trade and he	Used at colliery for steam and heat	Total production		Pounds black powder used	Pounds dynamite used	Pounds permiss- ible ex- plosives used	Days	Fatal Fmpl- acci-		accidents dis- ability 60 days or more
(1) Coal prepared at Morgan (5th) and Mintz (9th) (m)	Morgan (5th) and Mintz (9th) Hadaoside (3rd), Morgan & Parkeide (5th), Number Misane (6th), Thal Sock (9th), and Hiners Hills (10th) Hadiall (1st), Meadowside (3rd) Parkeide & Standard (5th), Russell (6th) and Packer (10th)	intz (9 Morgan ock (9t dowside h) and	th) & Parksid h), and M (3rd) Pa Packer (1)	e (5th), iners Mil rkside & Oth)	Number 1s (10th) Standard	# Discontin * " " @ " " (") Wine coal	ntinue " " coal	d operat	ion in	October September January May				
20 Operators in district 40 Operations " 19 Mines		De St	Deep mined coal Stripping " Bank "	coal	1,	1,146,194 198,986 111,424								
John J. Ronner, Inspector 448 Harrison Ave., Scranton					SIXTH DISTRICT	RICT								
Adelphia Coal Co. Silt Washery (W) Luzerne	erne -		1	1	1	1			1	1	240	17	1	1
• 8	=		1,106	1	1	1,106 (a)	a)	1	1	800	89	6	1	
	Lacka		3,992	1	1	3,992 (b)	(9	1	,	1,100	110	7	1	1
Stripping Luz	- Puzerne		572	1	1	572 (b)	(9	1		100	19	7	ı	1
·	" 6,	6,778	47,126	89	1	53,993 (b)	(9	1	31,700	1	216	13	1	1
Line	1		2,610	1	1	2,610 (c)	()	1	1	1,500	76	Ħ	1	1
Stripping #	" 29,	29,263	ı	1	ı	29,263 (d)	d)	1	15,000	1	83	20	1	1
Entrelberg Coal Co. Butler (e) Heidelberg (B)	62.6	069	3,141	7.736	531	3,141 (f) w) 90,957 (w)	f) w)	1 1	125	2,1450	12 239	132	١,٦	19
	" 22,	22,326	-	1	,		(J	1	1,900	. 1	246	10	,	-
Total for Co.	85,016	016	23,11,1	7.736	531				5,025	60,425		339	٦	9

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accidents	~ ~	dents or more		1	- 1	1		1	1	1	1	1	1 10	1 10	(u	1	1	1	1	1	
	Emp1-	oyes	7	21	160	16	11	7/	70	N	70	80	881	902	5(n)	6	77	~	199	9	
	Days	worked	506	203	83	117	12	186	29	100	89	206	215		157	169	124	96	194	191	
Pounds	ible ex-	nsed	1,200	18,200	35,250	. 1	1	1,300	250	930	1,400	8,950	228,985	228,985	١	12,500	1	ı	29,935	3,000	
	Pounds dynamite	nsed		009		20,250	520	ı	ī	,	300	1,500	34,100	80,293	1	1,000	8,300	1	1	ı	
Pounds	black	nsed							1	1			1 1		,	- 1	,	1		ı	
	rotal :	production:	7,125 (g)	17,659 (h)	75,188 (1) w)	27,757 (1)	819 (k)	2,322 (b)	385 (b)	1,664 (1)	2,703 (b)	9,681 (m)	421,482 (w) 38,758 (a)	460,240	ı	l, 687 (o)	(4) 882,8	26,410 (r)	(4,019 (4)	4,525 (k)	
let tons	colliery for steam	and heat	ı	,	ı		1		1	,	1	ı	5,349	5,349	ı	,	1	ı	194	1	
Production - net tons	to	trade		,	1	,				,			150,641	164,985	1			1	24,525	,	
Produc	8	truck:	ı	1	25,369		1	2,322	385	ı	2,703	1		-	ı	4,687	1	1	1	ı	
1	Shipped to	: railroad	7,125	17,659	49,819	27,757	819			1,664		9,681	265,492 414,42	289,906	1	ı	8,788	26,410	1,300	4,525	
		County	Luzerne	E	F	±	=	=	±	=	E	=	= =		E	E	=	:	Lacka.	Luzerne	
		Operators & Collieries County	Hillside Coal Co.	Jenkins Coal Co.	Jermyn-Green Coal Co. Butler (e)	L. K. Coal Co. Stripping	Lymott Coal Co. Stripping	Major Coal Co.	Minichello Coal Co.	M. B. Coal Co.	Mamura Coal Co.	Nardone Coal Co. Mine	Number Nine Coal Co. Number Nine (B) Stripping	Total for Co.	Pennsylvania Coal Co. Butler (n)	Panzitta Coal Co. Mine	Petrillo Coal Co. Stripping (p)	Rank	Russell Coal Co.	Nine	Sari Coal Co.

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			מ	TYTH DIST	SIAIM DISTRICT, CUNTINUED	MA TEN						M	Mon-fotol
			Prod	Production - net tons	net tons				Pounds			98	accidents
				Sold :	Used at	**	Pounds	100	permiss-				dis-
		: Shipped to market	to market	: to	colliery	••	black	Pounds	ible ex-			Fatal a	Fatal ability
		: By	By	: local	for steam	Total :	powder	р		Days	Emp1-	acci-	60 days
Operators & Collieries County	County	: railroad	truck	: trade	and heat	production :	nsed			worked	oyes		or more
Stodnick Coal Co.													
Mine	Luzerne	1,065	909	1	1	1,670 (d)	1	100	900	96	7	1	
Sussex Coal Co.													
Mine	×	2,912	74,541	184	1	77,637 (s)	1	4,725	36,600	207	116	ı	1
Sweeney Coal Co.													
Stripping	E	1	15,454	1	1	15,454 (b)	1	1	1,000	208	9	1	1
Talamelli Coal Co.													
Stripping \$	E	1	1,34,1	ı	1	1,341 (t)	ı	1	300	33	9	1	1
Valley View Coal Co.													
Bank	±	18,072	1,889	1,801	1	24,762 (u)	1	1	1	82	10	ı	1
Viroline Coal Co.													
Strippine @	=	1	2,123	ı	1	2,123 (v)	1	200	1	92	9	ı	1
Warnes Coal Co.													
Wine	=	1	900,6	1	-	9,006 (a)	1	225	2,625	556	10	ı	1
Grand total	_	654,555	218,972	202,320	12069	1,081,921	1	173,038	479,775		1977	3	17
(B) Breaker	:					(W) Washery							
(a) coal prepared at Number Wine breaker	umber win	e breaker				* Discontinu	ed ober	Discontinued operation in May	_				
S (a)	Kussell	=				#		aune "	Je				

(W) Washery * Discontinued operation in May	# " " June	% " " February	@ " " August	\$ " " April	(n) Maintenance men, while mine was idle.	(o) Coal prepared at Dial Rock (9th)	(p) See @ note	(q) Coal prepared at Morgan (5th) and Russell (6th)	(r) " Rhonda Washery (3rd)	(s) " Dial Rock (9th) and Miners Mills (10th)	(t) " Parkside (5th)	(u) " Talley View (8th)	(v) " Number Nine and Russell	(w) Mine coal
B) Breaker a) Coal prepared at Number Nine breaker) " Russell "	c) " " Morgan & Standard (5th) & No. 14 (8th)	(d) " " " (d)	e) Operated by Jermyn-Green Coal Co. to June, by Heidelberg starting Dec.	f) Coal prepared at Heldelberg breaker	g) " Russell (6th) and Madeira (10th)	" Underwood (2nd)	[] " " !!o. 14 (8th)	j) " Heidelberg and Russell (6th)	E = =	1) " ''organ (5th) and No. 114 (8th)	n) " "Underwood (2nd) and Ewen (6th)		

51,172 tons

Bank coal

205,186 tons

ı

Stripping coal

825,563 tons

ı

Deep mined coal

33 Operators in district 34 Operations "

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F 550			Produ	Production - net tons	et tons				Pounds			os e	Non-Istal
Andrew Hilson, Inspector				Sold	Used at		Pounds		permiss-				dis-
ידלאד יידיה יוספתי ודמססמויי		Shipped to market	narket:	to	colliery	••	black	Pounds	1ble ex-			Fatal ability	bility
		By	By:	local	for steam	Total : 1	powder	dynamite	plosives	Days	Emp1-	acci- 60 days	60 days
Operators & Collieries County	unty:	railroad	truck:	trade	and heat	production :	nseq	nsed	pesn	worked	oyes	dents	or more
Caylord Coal Co.													
	Luzerne	20,082	1	1	1,130	21,212 (a)	1	200	4,300	227	38	1	1
Glen Alden Coal Co.													
Avondale	E	121,344	1	ı	6,763	128,107 (a)e	1	3,000	88,250	210	287	П	7
Bliss (B)b)	=	144,353	2,014	10,951	10,151	167, b69 (c) e)	-	2,000	85,000)	506	376	~	9
Nanticoke Ex. Strip.	=	016,11	1	1	905	12,812 (c)					55	1	1
Newport " "	=	109,575	1	1	7,657	117,232 (c)			^		45	1	1
Loomis (B)	E	325,967	2,302	51,142	15,204	394,615 (e)	1	5,500	229,000)	210	1031	~	9
Newport Ex. "	E	74,102	1	1	2,499	76,601	ı		_		S	ı	1
Nottingham	=	146,593	1	1	8,101	154,694 (a)e)	1	6,250	39,500	500	1447	ı	6
Nanticoke Power Plant	=	. 1	1	1	1		1	1	1	365	90	1	1
Total for Co.		933,844	4,316	62,093	51,277	1,051,530	١	21,750	441,750		2381	2	25
Kingston Excavating Co.	=	501.7			0.1	7 503 (2)			00,0	263	36		
Nant tooke Except the Co		(276)		1	400	1976) (a)		1	00760	07	07		1
Stripping	=	19,526	ı	1	1,720	51,246 (d)	1	1,534,211	'	250	94	'	-
Grand total	I	1,010,575		1,316 62,093	54,527	1,131,511	'	051,454 161,456,150	1,54,150	-	2539	7	25

(c) Coal prepared at Truesdale breaker (B) Preaker (as each operating August 31, from then on coal prepared at Truesdale breaker, 13th district. (b) Freaker cassed operating August 31, from then on coal prepared at Truesdale breaker (c) Goal prepared at Loomis (7th) and Truesdale (13th).

1 1 Deep mined coal Stripping "

873,620 tons 257,891 "

l Operators in district
11 Operations "
6 Wines

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Non-fatal	accidents	dis- Fatal ability	60 days	or more		1	1	Ŋ	-	9			1		ı	_	1	7	ı	-	7		ო 1	1		2	-	56	dist.		
N	æ	Fatal a	acci-	acilian			ı	٦	1	٦		2	1		ı			ı	1	-	1					ı	-	7	(f		
				Cyco	0	3	730	733	ω	1471	1	559	585		77	1,7	į		(1)		922		170	187	1	52	아	3923	t. Washer	idle.	
			Days	MOI NEG	263		80	85	82	i		7172	23		17	191	ì	506	139(j)	170(j		ì	506		500	777	164		o. trict. distric	ss were	
	Pounds	permiss- ible ex-	plosives	naen	150		87,100	112,500	-	199,600	1	368,025	18,150		300	21, 1,75	1	241,116	1	1	•		72,600	72,600	700	21,500	1	951,916	een Coal Corresponding to the distribution of	e collieri	
		Pounds	ď	naen	850		1	1,	2,000	2,000	1	3,950	ı			225	1	1	ı	1	1	1	31,750	38,715	1	2	1	45,815	y Jermyn-Gr o. 9 breake nderwood br	d days whil	
		: Pounds : black	Total : powder		3.2h0 (a)k) -		119,348 (b)k) -	141,149 (d)k) -	3,206 -	263,703 -		355,303 (e)k) -	14,444 (g)k) -		685 (h)k) -	31.887 (a)k) -		341,286(d)1)k -	1	1	341,286 -		31.056 (a) k) -	115,973 -	27.175.753	10,451 (a)k) -	42,946 (d)1) -	1,185,918 -	(f) Operated to June by Jermyn-Green Goal Go. (R) Coal prepared at No. 9 breakers, 6th district. (I) Coal prepared at Underwood preskers, 2nd district. (1) Troules 66,997 tons allt. prepared at Adelphia Washerv. 6th dist.		(1) Bank coal
	et tons	Used at	for steam	alla lican	25	ì	9,231	23,088	-	32,319		2,011	1,609		27	266		3,072	ı		3,072	000	986	988	,,,,	130	- 1	41,319			
-	Production - net tons	Sold	local	or and	262		1	ı		1	000	27,319	3,737		385	2.1,20		20,881	ı	-	20,881	0	6,633	8,633	0 10	T,240	8,330	75,275			
	Produ	: market :	By +	or ach	. '		30,374	36,380	-	66,754		ı	ı		١,	. '		1	ı	-	1					ı	1,801	68,555	total.	1 (8th)	
		: Shipped to market	By By	י דמדד סמכ	2,953		79,743	81,681	3,206	164,630	1000	353,041	860,6		273	29,201		317,333		-	317,333	,00 00	31,056	106,352	270 75	15,000	32,815	1,000,769	r ot included in	2nd) and Ewer	
)r		Country	Common	Luzerne		=	= :	E		1	=	E		E	E		E	E :	E			: =			=	t		Ewen breake No. 14 " in June seources no	lerwood (
	D. H. Connelly, Inspector	Z5 E. Bennett Street Kingston, Penna.	Oneratore & Collianiae County	operation a contract tes	C. & G. Coal Co.	sen Coal Co.	No. 6 (c)	No. 14 (c) (B)	" Stripping (c)	Total for Co.	Knox Coal Co.	Number Nine Coal Co.	No. 6 (f)	Number 14 Coal Co.	No. 14 (f)	P. & J.	Pennsylvania Coal Co.	Ewen (B)	No. 6	No. 14	Total for Co.	Plains-Hilldale Coal Co.	Stripping	Total for Co.	Sarf Coal Co.	Tex Try my con U.S. L.	Valley View (B)	Grand total	(a) Coal prepared at Ewen breaker (b) Cassed operation in June (c) Cassed operation in June et al. (d) Coal from outside sources not included in total.	(e) Coal prepared at Underwood (2nd) and Ewen (8th)	

⁽a) Coal prepared at preu ureact;
(b) Cased operation in Un. 14.
(c) Ceased operation in Un. 14.
(d) Coal from outside sources not included in total.
(e) Coal prepared at Underwood (2nd) and Ewen (8th)

²⁰

EIGHTH DISTRICT. CONTINUED

Non-fatal	Pounds	dis-	Fatal ability	mpl- acci- 60 days	yes dents or more	
				Days E	worked o	
	Pounds	permiss-	ible ex-	plosives	nsed	
						0 -
		: Pounds	: black			
				Total		
	Production - net tons	Used at	colliery	for steam	and heat	
	on - net	Sold	to	local	trade	
4	oducti	••	÷;		 	
	Pro		o marke	B	truc	
			: Shipped to market : to colliery	By	Operators & collieries County : railroad	
					County	
					k collieries	
					Operators &	

10 Operators in district
11 Operations "
8 Mines "

Deep mined coal - 1,038,783 tons Stripping " - 37,262 " Bank " - 109,873 "

NINTH DISTRICT

D. W. Cosslett, Inspector 30 Main St., Wanamie, Pa.

1	1 1	-	2	١	7	-	7	2	;	13	12	-	25		ı		ı	ı
- 1	1.1	١.	,	- 1	2		2	2			-	1	2		ı		ı	2
23	mm	9	93	34	266	20	586	91/9		917	728	7	1652		~		37	107
217	.88.		202	223	217	97		211	č	184	183	283			170		110	223
20,250	1.1		34,925	7,000	184,167	-	184,467	208,275	1	144,500	69,475	1	213,975		ı		11,825	50,000
1	- 1-1	1	2,700	3,350	12,524	1	12,524	22,450		30,700	171,025	1	201,725		1		1,475	,
1	1 1		,	1	1	1	1	,		ı	1	1	1		ı		ı	ı
(a) i)	Œ		(1)	(c)1)	(1)			(d)1)		Į.	(c) i)	(°)					7,650 (b)1)	(c)1)
14,320 (a) i)	21,822 (b) 3,865 (h)	25,687	37,362 (1)	14,022 (c)1)	222,717 (1)	12,519	235,236	194,651 (d)1)		306,736 (1)	286,081	15,427	608,244		74,012		7,650	65,077 (c)1)
320	1 1	1	373	,	7,815	-	7,815	1,309	. ;	26,879	26,196	1	53,075		1		51	99
2,000	1 1	-	5,539	1	122,809	7,342	130,151	30,979		19,438	6,039	1	25,477		1		1,218	1
2,000	17,585	17,585	5,250	1		-		23,393		32,184	4,148	1	36,332		74,012		919	ı
10,000	1,237	8,102	26,200	14,022	92,093	5,177	97,270	138,970	,	228,235	249,698	15,427	493,360		1		5,162	65,012
Luzerne	= =	. 00.	=	ε	ε	£	. 00	ε	•	ε	Ξ	=	Co.	Elec. Co.	=		=	ε
Butter Tub Coal Co. Butter Tub	Capone Coal Co. Dial Rock Bank Maltby "	Total for Co.	Dial Rock Coal Co. Dial Rock (B)	Genelow Coal Co. Genelow	Harry E. Coal Co. Harry E. (B)	Stripping	Total for Co.	Xehoe-Berge Coal Co. Exeter (e)	ey Cc	Prospect (B)	Westmoreland	" Stripping	Total for Co.	Luzerne County Gas & Elec	Maltby Bank	Maffel Coal Co.	Maffei	Maltby Coal Co.

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				TO BININ	MINIH DISTRICT, CONTINUED	TUNCED						Ň	Non-fatal
			Produc	Production - net tons	et tons				Pounds			90	accidents
		: Shipped to	шаг	Sold	Used at colliery		Pounds black	Pounds	permiss- ible ex-		1-4		dis-
Operators & Collieries County		: By : railroad	By truck	local trade	for steam and heat	Total : production :	powder	dynamite used	plosives	Days	Empl - acci-	acci-	60 days
	Luzerne	61,979	1	712	703	63,394 (c)1)	1	1,600	64,100	52	(g)	1	1
R. & W. Coal Co.	E	1	1	270	1	270 (1)	1	100	500	18	13	1	1
Sullivan Trail Coal Co. Clear Spring (Shops)	=	1	1	1	1		1	1	1	225	73		1
West Exeter	=	28,600	3,881	2,702	3,488	38,671 (c)1)	1	5,1,50	34,800	200	51	,	-
Grand total		948,977	163,372 199,048	199,048	64,199	67,199 1,378,596	'	254,374	830,117		3,324	8	37
(a) Coal prepared at Dial Rock breaker (b) Slush (c) Coal prepared at Prospect " (d) " William A " (1) Mine coal	Dial Rock b Prospect William A	reaker " (5th)				(e) Exeter, formerly operated by Payne Coal Co., and Red Ash Shaft, operated by Kehoe-Perge, combined, now known as Exeter (f) Operated by Payne Coal Co. to May, then by Kehoe-Perge Coal Co. (g) See Kehoe-Perge (Exeter) employes. Operated with approximately same number. (h) Coal prepared at Miners Wills breaker, 10th district.	formerly oper operated by K by Payne Coa e-Berge (Exet same number.	formerly operated by Payne Coal Co., and Red Ash Shaft operated by Kehoe-Perge, combined, now known as Exeter by Payne Coal Co. to May, then by Kehoe-Berge Coal Co. e-Berge (Exeter) employes. Operated with approximatel, same number.	by Payne C Berre, com to May, t mployes.	oal Co., buined, n hen by K Operated	and Rec ow know ehoe-Eer with ap	l Ash Sh i as Exe rge Coal	aft, eter L Co. ately
14 Operators in district 17 Operations " 11 Mines "						Deep mined coal Stripping " Rank "	. al	111	1,250,951 tons 27,946 " 99,699 "	ន្ទដ ៖			
Jos. C. Hines, Inspector 27 James St., Pittston, Pa.	, e			TEM	TENTH DISTRICT								
sh C. (8	Sullivan	2,818	11,825	8,942	1	23,585 (n) 40,000	10,000	200	1	121	101	- 1	1
Miners Mills (B) Lu	Гигетте	23,670	1	30-550	8	54,270 (a)	1	1	20,900	186	105	1	1
Madeira (B)	t	500,75	1	6,087	329	63,421 (b)	1	1,200	48,750	203	119	1	1
Packer (B)	=	31,574	2,240	ηο9,4	290	38,708 (n)	1	7,700	31,650	188	157	1	2
Mineral Spring	E	18,026	1	23,727	1	41,753 (c)d)	1	61,825	19,650	208	8	ı	1
Greenwood Mining Co,	z	28.062	١	1	1	28.062(e)f)	1	2,650	31,875	205	58	1	1

Non-fatal

		Proc	luction -	Production - net tons				ш.	Pounds			; ct	accidents
	Shipped t	Shipped to market : By By	Sold to	Used at colliery for steam	Total	: Pounds : black : powder	lds k Pounds der dynamite		permiss- ible ex-	Davs	Pmn]-	Fatal Faml - acci-	dis- ability
Operators & collieries County : railroad	y : railroad	truck :	trade	and heat	production	: used	- 1	- 1	nsed	worked	oyes	dents	or more
Hudson Coal Co.													
Delaware Luzerne	e 156,561	1	27,511	16,602	200,674 (g)h) 213,100	(h) 21	3,100 36,		53,013	214	370	٦	10
) alph	185,723	1	31,709	18,945	236,377 (1	11	3,025 13,		75,825	277	534	1	1
Laflin (B) "	33,212	1	4,055	1	37,267 (j)	_	- 20,	000	2,600	277	69	1	1
Total for Co.	375,496	-	63,275	35,547	474,318	320	326,125 70,183 131,438	183 1	31,438		973	П	п
Lehigh Valley Coal Co. "	287.823	17.706	1.960	30.052	337.5/11 (k)n)	(u)	- 218.125	125		181	657	-	[
Pringle Coal Co.	10000				100 00		Î				1		1
Hest Side Coal Co.	30,034	ı	ı	ı	30,034 (1)n)	(u (.,	32,900	7172	(2)	ı	
West Side	24,639	'	1	1	24,639 (m)n)	(u)	1	650	28,125	164	63	1	3
Grand total	887,147	31,771 139,145	139,145	- 1	66,268 1,124,331	36	366,125 362,833 345,288	833 31	15,288		2361	3	01
(B) Breaker (a) Includes 22,649 tons stripping and 2,238 tons bank coal.	pping and 2,238	tons bank c	coal.	(a) (b) (b)	g) Coal prepared at Laflin and Pine Ridge breakers of Hudson Coal Co. h) Includes 16,246 tons stripping coal.	at Laf	lin and Pi stripping	ne Ridg	ge breake	rs of H) uospn	oal Co.	
(b) " 13,024 " " (c) Coal prepared at Harry E. breaker, 9th district	breaker, 9th	dstrict	=	ĐĐ	18,296	= = 6	t t	and 6,	and 6.776 tons bank coal.	bank c	oal.		
(d) Includes 18,976 tons stripping coal. (e) Coal prepared at Laflin breaker of Hudson Coal Co.	pping coal.	n Coal Co.		33 33	k) Coal prepared at Prospect breaker, 9th district.	at Pro	Prospect breaker, 9th district. Waddell (1st), William A (5th), Heidelberg (6th).	ker, 9t	th distri	ct.	delbere	(6th).	
(0)													

	c coal.	E	
	s bank		4 - 4
	,238 ton		4.1. 30 .4.
	and 2		
	stripping	E	- L
	tons	F	#T
	22,649	13,024	And the same
(B) Breaker	Includes	E	0
(B)	(a)	(9)	1-1
23			

(c) Coal propared at Harry E, breaker, 9th district (d) Inruludes 18,976 tons stripping coal.
(e) Coal prepared at Lailin breaker of Hudson Coal Co. (f) Inchuses 6,302 tons stripping coal.
(n) Mane coal.

1 1 1 Deep mined coal Bank

10 Operators in district 12 Operations " 12 Mines "

1,001,945 tons
113,372 "
9,014 "

and Harry E. (9th)
Waddell (1st), William A (5th), Heidelberg (6th),
No. 14 (8th) and Dial Rock (9th).

± Œ

				Daniel	1074						Danielle			2 (on-ratal
	T. M. Beaney, Inspector			rroan	rroduction - net cons	ner rous		1			romids			1 0	accidents
	316 Monument Ave.			••	Sold	Used at		••			permiss-				dis-
	Wyoming, Penna.		: Shipped to market	market :	to	colliery			black	Pounds	ible ex-			Fatal	ability
			: By	By:	local	for steam	Total	**		dynamite	plosives	Days	Empl-	acci-	60 days
	Operators & collieries County		: railroad	truck:	trade	and heat	production		nsed	nsed	nsed	worked	oyes	dents	or more
	المولاية المالية														
	Then with the total														
	Empire Shaft Luz	Luzerne	145,680	1	1	5,844	151,524	(a)	1	2,100	126,000	211	431	ı	7
	" Stripping		11,786	1	1	1,514	13,300	(a)	ı	4,950	1	250	2	1	1
	Kidder Slopes	E	150,058	-	1	6,023	156,081	(a)	1	700	125,000	211	907	ŝ	9
	" Stripping	=	31,178	1	•	1,115	32,593	(a)	1	31,850	. 1	117	15	,	,
	S. Wilkes-Barre (B)		256,916	3,196	94,563	12,316	366,991	(q)	1	6,400	213,000	506	1025	77	77
	Total for Co.		595,618	3,196	94,563	27,112	720,489		1	45,700	1,64,000		1907	7	77
	Hudson Coal Co.														
	Baltimore #5	=	163,941	1	45,329	13,779	223,049 (b)d 21,775	p(q)	21,775	26,053	102,775	215	044	2	70
	" Stripping	=	31,552	1	1	1	31,552		1		1	250	29	1	1
	Total for Co.		195,493	1	45,329	13,779	254,601		21,775	314,028	102,775		6917	2	20
	Lehigh Valley Coal Co.														
	Dorrance (B)	=	224,097	52,000	53,114	25,619	354,830 (d)	(q)	ı	247,825	1	202	162	-	13
	Franklin	=	92,661	1,85	1	8,992	102,138	(c) d	1	2,175	46,100	188	237	-	4
24	Total for Co.		316,758	52,485	53,114	34,611	456,968		1	250,000	46,100		666	2	17

(B) Breaker (a) Coal prepared at Huber breaker, 13th district

Grand total

(b) Coal prepared at Marvine breaker, 5th district (c) " " Prospect " 9th " (d) Mine coal

1,107,869 55,681 193,006 75,502 1,432,058 21,775 609,728 612,875

3 Operators in district 9 Operations " 6 Mines

Deep mined coal - 1,354,613 tons Stripping " - 77,445 " Bank " ---

Non-fatal accidents	dis- ability	60 days	or more		٦	1		1		1		9	12	18		17	1	1	1	`	36
	Fatal	Empl- acci-	dents		1	1		1		1		٦.	7	9		7		1	1		10
		Enp1-	oyes		37	80		78		10		101	1531	2545	-	1441	77	=	23		4291
		Days	worked		214	23)	1	213	1	244		208	210			214	21.3	(17	274		
Pounds	permiss- ible ex-		nsed		13,400	511,060	î	45,625		1		244,750	283,000	527,750		264,825	220 63	0000	8,450	0	61,850 39,980 1,441,185
	Pounds	dynamite	nsed		750	1		1,000		19,500		4,500	1	4,500		14,230		,	1		39,980
	Pounds black	powder	nseq		1	,		1		1		1	1	1		61,850		1	1	1	61,850
	 ا	**			(a)			(c) f				(F	£)			(d)f	(0)	(2)	(e)		
		Total	production		28,482 (a)	(4)		52,470 (c)f)		(P)		393,796(f)	498,308(f)	892,104		813,823 (d)f 61,850	72 036	197006616	13,421 (e)		1,858,236
net tons	Used at	for steam	and heat		ı			1		1		22,084	34,532	56,616		34,998		1	1		91,614
Production - net tons	: Sold	: local	: trade		1			1		1		110,406	93,052	203,458		121,14		1	1		244,579
Pro	o market	By	truck		1			1		1		22,60h	8,307	30,911		1		1	1		30,911
	: Shipped to market	: By	: railroad		28,482	1		52,470		1		238,702	362,417	601,119		737,704	75 036	21,730	13,421		1,161,132
			County		Luzerne	E		ε		±		E	=	•		E			=		
E. C. Curtis, Inspector	52 Poplar Street Kingston, Penna.		Operators & collieries	Bird Mining Co.		Carey, Baxter & Kennedy	Courtdale Coal Co.	Courtdale	Dewees Bros.	Stripping	Glen Alden Coal Co.	Lance (B)	Woodward (B)	Total for Co.	Hudson Coal Co.	Loree (B)	Kingston Mining Corp.	Larkaville Coal Co.	Wine		Grand total

(b) Breaker at Lance breaker a land a land a land a land broaker (c) Included in production for Loree colliery. (c) Coal prepared at Woodward breaker

8 Operators in district 9 Operations " 7 Mines

1.1 Deep mined coal

Stripping Bank

1,721,715 tons 136,521 "

(d) Includes 106,632 tons stripping coal, produced by Carey, Eaxter & Carmedy, and 29,889 tons stripping coal, produced by Demees Bros.

(e) Coal prepared at Loree breaker(f) Wine coal

													Non-fatal
J. D. Edwards, Inspector			Prod	Production - net tons	net tons				Pounds				accidents
55 Butler Street				: Sold	Used at	••	Pounds		permiss-				dis-
Wyoming, Penna.		: Shipped to	narket	to	colliery	••	black	Pounds	ible ex-			Fatal	ability
		By By:	By	: local	for steam	Total :	powder	dynamite	plosives	Days	Emp1-	acci-	60 days
Operators & collieries	County	: railroad	truck	: trade	and heat	production:	nsed	nsed	nsed	worked	oyes	dents	or more
Glen Alden Coal Co.													
Buttonwood	Luzerne	348,048	1	1	14,079	362,127 (a)	1	18,150	233,000	211	1022	2	11
Huber (B)	E	314,799	736	245,368	22,669	583,572	1	20,550	359,500	509	1542	Н	21
A.E. Dick Stripping	=	87,026	ı	. 1	3,482	90,508 (a)	1	583,900	1	261	79	1	1
Sugar Notch	E	135,696	1	1	6,035	141,731 (b)	1	2,500	68,000	509	212	1	7
Truesdale (B)	E	398,035	64	68,067	20,257	1,86,1,08	1	62,425	303,500	509	1103	2	18
A.E. Dick Stripping	E	29,173	1	- 1	1,535	30,708 (b)	1	119,700	- 1	145	56	1	1
Kingston Excav. "	E	86,492	-	-	3,737	90,229 (b)	1	173,900	1	274	35	1	1
[e+0+		096 006 1	785	אבין בוב		77 701. 1 785 983		מפר רפס	061.000		1.201.	ù	นี
Grand cotar		1,377,407	(0)	212,422	1	1,102,200		701,162	204,000		4204	7	24
(B) Breaker (a) Coal prepared at Huber breaker (b) " Truesdale "	Huber break Truesdale	rez		1 Operator in 7 Operations " 4 Mines "	Operator in district Operations " Mines "	ict		Deep mined coal Stripping " Bank "	d coal	1 1 1	1,573,	1,573,838 tons 211,445 "	St

FOURTEMENT DISTRICT

1 1 1	١	ı	1	1	1	15		15
1.1.1	-	,	1	1	1	1	1	1
232 24)	256	17	25	_7	143	11405	25	1457
105		207	207	12		215	569	
34,200 15,000	49,200	5,350	11,885	1	47,235	424,800		558,500 424,800
1,950	8,450	5,125	18,150	1	23,275	39,100	619,100	658,500
1 1 1	1	1	ı	1			-	
46,952 11,592 (b) 165	58,709	8,190 (c)	42,013 (c)	623 (c)	50,826	626,553	208,117	834,670
622	622	,	1	1	1	28,615	9,551	38,166
6,505	6,505	1	ı	1	-	26,916		26,916
111	-	1	1	-	-	15,684	_	15,684
39,825 11,592 165	51,582	8,190	42,013	623	50,826	555,338	198,566	753,904
lden Coal Co. Alden (a) (B) Luzerne Stripping (a) " Bank (a) "	Total for Co.	West End	Stripping	Bank "	Total for Co.	Glen Alden Coal Co. Wanamie (B) "	Stripping "	Total for Co.

K. C. Lee, Inspector 88 Old River Road Wilkes-Barre, Penna.

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			Prod	Production - net tons	net tons				Pounds			980	accidents
				: Sold	Used at		Pounds		permiss-				-stp
		: Shipped to market	to market	to to	colliery		black	Pounds			[24	Fatal a	ability
		: By	By	: local	for steam	Total :	powder	dynamite	ď	Days	Empl- acci-		60 days
Operators & collieries County	County	: railroad	truck	: trade	and heat	production :	nsed	nsed	nsed	worked	oyes d	dents	or more
Stackhouse Coal Co.													
Stackhouse	Luzerne	1	1	392	1	392	1	1	300	76	7	1	1
Stripping	E	1	127	1	1	127 (d)	1	200	200	641	_7	1	1
Bank	t	-	754	1	1	754 (e)	1	1	1	15	~	1	1
Total for Co.	r Co.	1	1881	392	1	1,273	1	200	800		77	1	1
Susquehanna Collieries Div.	Div.												
M. A. Hanna Co.													
No. 7 (B)	Luzerne	287,010	83,975	123,454	23,569	518,008	1	000,9	269,050	196	1356	7	56
Stripping	t	71,962	1		1	71,962 (d)	1	146,500	78,925	196	34	1	1
Glen Lyon (B)	E	304,551	8,390	20,653	27,828	361,422	1	22,900	209,600	195	830	7	18
Stripping	E	79,106	1	1	1	79,106 (f)	1	275,618	1	195	30	1	1
Alden	E	32,108	1	1	1	32,408 (g)	1	7,825	24,200	108	(H	1	1
Stripping	ε	6,351	1	1	1	6,351 (d)	1	200	1	108	(h)	1	1
Total for Co.	r Co.	781,388	92,365	144,107	51,397	1,369,257	1	359,343	581,775		2250	8	117
Le +o+	100	050 721 050 801 002 753 1	108 030	177 090		200 186 2 011. 726		חוא בחו ו 876 ס.וח ו	טנא בטנ נ		1.000	c	ç
מו שוות הם	Lai	T,031,100	TOOLY	111,750		C, 014, 132			TOTOS COT 6 T		4050	,	27

Breaker

Discontinued operation in June. Taken over by M. A. Hanna in July. B. 332 tons prepared at No. 7 breaker, of M. A. Hanna Co. Coal prepared at Packer breaker, John district E 600

No. 7 breaker

(e) Coal sold unprepared (f) Coal prepared at Gen Lyon breaker (f) Coal prepared at Gen Lyon and 22,431 tons at No. 7 (f) See employes for Alden Coal Co. Operated with approximately the same number.

5 Operators in district 15 Operations " 6 Mines "

1,593,925 tons 419,268 " 1,542 1 Deep mined coal Stripping " Bank "

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accidents	ap	or more	1	1	1		7	ı	ı	1 1	1		1	1	1		1	1	1 1	1	1			1	1	V) I	٣	1 1	1
	Fatal		1	1	1		Н	1	1	1 1	п		П	1	П		1	1	1 1	1	1		1	1	1	1	1 1	1	1 1	1
	Finns	oyes	12	7	17		32	97	7 .	Jw	77		23	14	37		174	7 T	_ላ ሂ	3.6	329	126	26	13	164	200	39	180	7 7	×
	Dated	worked	61	56			132	500	747	10			205	199			127					125	35	189		202	249	208	208	217
Pounds			200	1	200		2,875	ı	ı	1 1	2,875		9,375	3,300	12,675		39,250	ı	26,000	20062	65,250	0 870		1	9,875	00 224	77,9667	108,525	2,1,00	1
	Pounds	nsed	100	1	100		1,400	4,250	1,	T,500	7,150			1	1		57,825	60,625	5	6,500	145,950		25,650	1	25,650	1	18,750	726	1,25,670	95,150
ounds	black	nsed	1	1	1		1	1	ı	1 1	,		1	1	1		1	ı	1 1	1 1	1		1 1	1	1		1 1	ı	1 1	1
۱"	• •• •						3	<u>@</u> ;	<u>@</u> ;	<u>e</u> e			(a) (c)	(a)c)			(a) (c)	e ((e)	(e)		(3)	(8)			(0(0)	(E)	(a)c)	(2)	(i)
	F + C	production	200.	2,000	2,500		7,994	20,215	4,035	258	40,922		10,722 (a)c)	7,309	18,031		16,131	25,621	20 000	42,284	146,673	י אסט נט	9.961	122,104	154,021	101. 1.60	73,576	109,519	22,000	23,818
lised at	colliery	and heat	1	1	1		듥	300	1	1 1	1/17		87	57	1/1		475	ı	1 1	160	635	000	200	200	912	831.	385	858	191	165
Production - net tons	to	trade	300	1,700	2,000		1,500	4,500	239	2,265	8,495		1	1	1		1	1	1 1	1 1	1	J. J.	202	5,199	10,589	22.01.5	< 20045 -	24,164	1, 81,0) 1
Produ	o market :	truck :	ı	1	-		1	1	1	1 1	-		1	-	-			1	1 1	1	1		1 1	1	1	52 022	22,766	56,542	7,12,17	14/6
	Shipped to market	railroad	500	300	200		6,353	15,415	3,805	6,155 258	31,986		10,638	7,252	17,890		48,956	25,621	20 20 20 20 20 20 20 20 20 20 20 20 20 2	42,124	146,038	290 21	9,31,8	116,105	142,520	96 650	72,988	27,955	74,030	23,653
		County	Columbia	E	,		Luzerne	= 1	= ;	Columbia			nzerne	=			E 1	= =	: ::	E			E	E		- -	: =	= :	: =	E
Ralph Ditzler, Inspector	Hazleton, Penna.	Operators & collieries Co	Glen City Coal Co. Red Oak (B) Co.	Bank	Total for Co.	Gowen Coal Co.		" Stripping		Western Lehigh Strip. Co	Total for Co.	Greenwood Mining Co.	9	Eckley No. 2	Total for Co.	抗	Deringer (d)		Temptoken (d)	" Stripping	Total for Co.	Hydrotated Anth. Fuel Co.	(a) of the control of	" Bank	Total for Co.	Jeddo-Highland Coal Co.(B	urilton " Stripping	Eckley "	Ht chland #5	Highland #2 Stripping
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			Proc	Production - net tons	net tons				Pounds			æ	accidents
				: Sold	Used at		Pounds		permiss-				dis-
		: Shipped to market	o market	to	colliery	••	black					Fatal	Fatal ability
		: By	By	: local	for steam	Total :	powder	d,	Ы	Days	Emp1-	acci-	Empl- acci- 60 days
Operators & collieries County	County	: railroad	truck:	: trade	and heat	production:	nsed	nsed	nsed	worked	oyes	dents	or more
Jeddo-Highland C.Co. Contd.	ntd.												
Jeddo No. 7 Lu	Luzerne	12,949	26,192	11,193	177	50,781 (a)c)	ı	1	19,500	500	305	٦	m
" " Strip.	£	185,033	1	•	1,643	186,676 (c)	1	889,950	1	256	28	1	ı
Stockton	E	30,217	61,118	26,120	931	118,386 (a)c	ا ټ	1	99,325	202	215	1	7
	E	74,208	1	1	588	74,796 (c)	1	8,000	1	250	20	1	1
Total for Co.		493,362	209,121	89,371	6,517	798,371	1	1,148,370	331,975		1205	1	16
Lombardo & Puglia				1-7.									
Excavating Co.			,	10-1									
Tomhicken #5 Strip.	E	3,963	1	2000		3,963 (f)	1	800	ı	125	7	1	ı
Monitor Co., Inc.						;					,		
East Laurel (B)	E	24,299	766	3,941	290	29,524 (g)h)	-			93	8	ı	ı
Sandy Run Miners &													
Producers													
Upper Lehigh (B)	æ		1	1	1	•	1	1	1	155	27	1	ı
Stripping	t	52,040	4,850	5,715	235	62,840	1	15,600	-	21/14	775	1	1
Total for Co.		52,040	4,850	5,715	235	62,840	1	15,600	-		69	-	1
			17.			7 10 17 1			1		7,11	,	
Grand total		912,598	912,598 214,965 120,111	120,111	9,171	9,171 1,256,845	1	- 1,343,620	422,850		1905		128

Coal prepared at Gowen breaker
" Jeddo-Highland breaker

(B) Breaker
(a) Deep mined coal
(b) Coal prepared at Gowen breaker
(c) " - jeddo-Highland break
(d) Discontinued operation in September

(e) Coal prepared at Beaver Meadow breaker, 18th district (f) 1/70f tons prepared at Coll Spring No. 6, 1,989 downs at Beaver Meadow, 865 tons at Beaver Brook, 16th district, and 121 tons at Coleraine, 16th. (g) Bank coal (h) Discontinued operation in October

526,013 tons 566,529 " 164,303 " ı Deep mined coal Stripping " Bank "

⁹ Operators in district 31 Operations "

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Non-fatal accidents dis- ability 60 days or more	111	-		٦	m	۱۳	0		12	1	4 L	2	141	1	1	1 1	m I	3
Fatal acci-	1 1 1	1	1	1	٦	1 1	1	1 1	1	1	1 1	-	111	1	1	1 1	i 1	
Empl-	999	56	10	56	11,15	251	302	13/3	869	23	210	270	118 55 6	42	7,7	135	1 2	352
Days worked	175		264	247	191	203	503	163		78	193		231 221 2		105	193	188	
Pounds permiss- ible ex- plosives used	111			1	19,100	1.1	1		1	,	82,150	83,125	111	1	1	1.1	1 1	1
Pounds dynamite used	1,450	1,450		'	ı	4,650 92,350	115,400	7,500	507,850	10,950	13,225	19,925	52,075	52,075	1	1,400	22,000	218,325
Pounds black powder used	111			1	ı	1 1	1			ı	1 1	1	111	1	1	1-1	1 1	,
Total : F	16,876	24,645	68,946 (a)	135,223 (a)	70,908 (b)c)	1,324 (c) 81,197 (c)	107,921 (c)	11,905	329,663	11,029 (d)	94,357 (c)e) 92,276 (f)	186,633	30,800 (b) 94,964 (g) 205 (b)	125,969	25,731 (a)	17,472 (c) 54,034	51,252 (c) 56,838	179,596
Used at colliery for steam and heat	, 1000	100	1	ı	2,600	251 1,902	6,693	723	19,113	1	2,10h	5,203	1,157 3,563 20	0,1740	ı	369	1,083	3,830
Production - net tons Sold Used a et : to collie y : local for stee ck : trade and he	111			1	4,022	3,775	1,801	530	14,728	1	3,158	8,174	1,745 5,374	7,130	ı	585	1,904	910,9
mark B Brru	3,698	5,798	,	5,591	7,859	348	8,646	956	26,524	1	5,270	11,977	3,410 10,497 21	13,928	,	3,020	2,866	10,040
Shipped to By railroad	13,078	18,747	976,89	129,632	56,427	3,532	87,781	9,697	269,298	11,029	83,825	158,279	24,488 75,530 153	171,001	25,731	15,541	15,586 50,538	159,710
R. Ditaler, Acting Inspector : 609 Grant Street Hazleton, Penna. : Operators & collieries County :	Beaver Brook Coal Co. Beaver Brook (B) Luzerne Stripping " Bank	Total for Co.	al Co	Carbonizing (B) "	Cranberry "	Audenried) Carbon) Schuyl.	" Luzerne		Harbon Coal & Contrig. Co. Sheppton Stripping Schuyl.	ldt Luzerne	Total for Co.	Lehigh Valley Coal Co. Black Ridge Strip. " Cranberry " " Bank "	Total for Co.	Norwidas & Palko Oneida Silt Plant (B) Schuyl. Payne Coal Co.	Spring Mountain (B) Luzerne Spring Astrip. Carbon	Spring Brook " Strip. "	Total for Co.
R. Dit 609 Gr Hazlet	Beaver Beaver Strip Bank	;	Bellevue Co Hill Top Carbonizing	Cranbe	Glen Alden	Auden				Shep	Humboldt		Lehigh Black Crant		Norwid Onei	Spri	Spri	

CONTINUE
DISTRICT,
SIXTEENTH

		Produ	Production - net tons	et tons				Pounds			æ	accidents
			Sold	Used at		Pounds		permiss-				dis-
	: Shipped	Shipped to market :	to	colliery	••	black	Pounds			щ	Fatal 8	ability
	: By	By :	local	for steam	Total :	powder	dynamite	plosives	Days	Empl- a	acci-	60 days
Operators & collieries County	y : railroad	truck:	trade	and heat	production :	nsed	pesn		worked	oyes c	dents	or more
T. F. Steele Coal Co.												
Coleraine (B) Carbor		6,318	ı	1	37,583 (a)	1	1	1	165	74	1	1
Harwood	m	1	850	1	7,438 (c)	1	250	2,300	717	34	,	1
Humboldt Stripping "	8,816	1,374	200	1	10,390	ı	1,000	200	19	9	1	1
	10,515	2,300	300	1	13,115	1	1,400	800	38	12	1	1
Oneida Schuyl	1, 36,127	10,000	1,500	200	47,827 (c)	1	26,750	11,500	71,5	138	1	٦
	23,921	10,000	1,000	156	35,077	1	3,500	1,000	123	35	1	1
Total for Co.	117,232	29,992	3,850	356	151,430	1	32,900	16,100		569	,	2
Trader Horn Coal Co.												
Silver Brook Bank Luzern	31	1	ı	1	31 (h)	ı	1	1	N	S	i	1
" Strip. "	52,181	5,128	2,848	3,709	(1) 998(6)	1	5,800	1	227	35	1	1
Total for Co.	52,212	5,128	2,848	3,709	63,897	1	5,800	1		γo	,	1
Grand total	1,167,414	119,837	146,768	39,651	1,373,670	1	879,075	118,325		2123	1	27

Bank coal Breaker

Coal prepared at Hazleton Shaft breaker, 18th district @@@@@

2,207 tons prepared at Beaver Brook, 1,444 tons at Coleraine, 5,810 tons at the Saver Meadow, 16th district, 1,172 tons at Wyrtle, 16th district and 96 tons at Chiberton breaker, 20th district Deep mined coal

at Hazleton Shaft, 18th district (e) Coal prepared at Spring Mountain breaker (f) 9,819 tons prepared at Spring Mountain, the balance

(g) 306 tons prepared at Spring Mountain, the balance at Hazleton Shaft

(h) Coal sold unprepared (i) 110 tons prepared at Broadmont.breaker, 18th district, balance at Audenried breaker

485,996 tons 612,186 " 275,488 " 1 1 Deep mined coal Stripping

¹² Operators in district 28 Operations " 8 Mines "

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M. J. Clements, Inspector		DOLL	TCCTOIL - I	ar coils				romias			nţ	accidents
25 Ruddle Street	Shinned t	Shinned to market.	: Sold	Used at	** **	Pounds	Pounds	permiss-			Fatal	dis-
	١	By	local	for steam	Total :	powder	dynamite	plosives	Days			60 days
Operators & collieries County	: railroad	truck	: trade	and heat	production:	nsed	pesn	nsed	worked	oyes	dents	or more
Anthracite Enterprises, Inc. Hauto (B) Carbon	175,220	,	270	568	175,758	1	,		166	163	1	•
gation Coal C		706.01	16 72	1	010		700 001	,000	0	702		, 00
coaldale) (b) Carbon) Schuyl.		137,406	15,729	14,179	456,748	1 1	106,250	136,925	189	850	۱ م	<u></u>
Stripping		1		1	309,867	1	391,450		189	146)	1	'n
ank	2,901	ı	1,	1,	2,901	1	1	ı.			ı	1
Tamaqua (B) "	642,437	173,929	35,835	8,114	860,315	ı	379,800	331,450	185	1634	_	ر ر
" Stripping "	38,609	۱ !			38,609	1 1	2,040,059		182	23.2	1 1	٠,
Total for Co.	1,756,256	361,130	98,135	27,431	2,242,952	1	3,697,234	674,600		3764	m	53
Grand total	1,931,476	361,130	98,405	27,699	2,418,710	١	3,697,234	674,600		3927	6	53
(B) Breaker												
2 Operators in district 8 Operations " 11 Mines				Deep mined coal Stripping " Bank "	d coal	7,00	1,594,873 tons 606,569 " 217,268 "					
J. J. Shober, Inspector 227 W. Ridge Street Lansford, Penna.			<u>a</u>	eichteenth district	STRICT							
	'	1		, }	1	1	,		178	23		
" Stripping "	23,252	25,161	1,412	325	50,150	-	170,900	-	251	12		
Total for Co.	23,252	25,161	1,412	325	50,150	-	170,900	1		22		1
Haddock Mining Co. Reaver Meadow (B) (a) " Strinning "	39,885	74,274	3,882	1,791	119,832	1 1	68.1.50	000,000	119	161	1.1	۱ ۱۵
Total for Co.	70,446	74,274	3,882	1,791	150,393	1	68,450	000,006		546		2
Fairclough Mining Corp. Stripping (c) "		2,377	,	,	2,377 (b)	1	,	,	143	8	1	,

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			Prod	uction -	Production - net tons				Pounds			æ	accidents
			•	Sold	Used at		Pounds:		permiss-				dis-
		: Shipped to market	o market :	to	colliery		: black		ible ex-			Fatal	ability
		By	By :	local	for steam	Total	: powder	dynamite	plosives	Days	Empl- acci-		60 days
Operators & collieries County	County	: railroad	truck:	trade	and heat	production	: used	- 1	- 1	worked	oyes		or more
Toht of Near metion													
Coal Co. Tre-													
(B)	Carbon	692.60	1	1.075	34,004	727,683	1	271.900	309,862	187	1911	~	22
	E	016,544	,			1115,910	1	886,675		187	297)	١.	•
Bank	E	7,807	1	•	1	7,807	1	. 1	1			1	1
Total for Co.	.0	1,146,351	1	1,075	34,004	1,181,430	'	1,158,575	309,862		2208	<u>س</u>	22
Lehigh Valley Coal Co.													
	Luzerne	532,527	74,165	37,958	40,265	684,915	1	ı	320,400	193	1731	1	23
Stripping	E	56,921	7,927	4,057	3,234		1	101,525	1	235	29	١	1
Bank	E	8,131	1,132	579	1,290		1	1	1	89	6	1	ı
Total for Co.	.0	597,579	83,224	42,594	14,789	768,186	1	101,525	320,400		1807		23
Norvidas & Patrick													
Washery (d) (B) Ca	Carbon	4,560	1		1	4,560	1	1	1	75	7	1	1
Grand total		1,842,188 185,036 48,963	185,036	48,963	80,909	80,909 2,157,096	1	- 1,499,450 720,262	720,262		1,626	m	147
(B) Breaker													

(b) freentinued operation in September for Discontinued at Coleraine breaker, 16th district

6 Operators in district 12 Operations " "

NINEFEENTH DISTRICT

1,532,430 tons 601,167 " 23,499 "

(c) Discontinued operation in June (d) " July

Deep mined coal

Stripping Bank

> 1,100 13,100 9,800 Schuyl. Beckville Coal Co. Beckville (B) A. & A. Coal Co. Warlin (B)

T. A. Ryan, Inspector 1243 W. Norwegian St.

Pottsville, Penna.

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89 8

8,500

24,000 (*)p) *

9,756 (a) 2,840 (c)

206 ŧ

420 230

1,020 510

8,110 2,100

Brenier & Blew Strip. Co.

Stripping

Bell Patterson Coal Co. Wine (f)

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Non-fatal

		Operators & collieries County	Stripping Schuyl.	Mine "	Total for Co.	Colitz Coal Co. Stripping " Colitz (B) "	Total for Co.	Darkwater Coal Co. Wolf Creek (B) "	Eagle Hill (B) "	Total for Co.	Hacter Coal Sales Co. Hacter (B)	Haven (B) "	Hillside Coal Co. Hillside (B) "	Tamaqua Stripping "	Silver Creek " "	Total for Co.	Indian Run Coal Co. Indian Run (*) (B) "	K. M. F. (*) (B) "	Stripping	Lohb (B) "	Total for Co.
	: Shipped to market	By railroad	68,620		38,100		146,705	4,360	68,286	68,286	1	1	220			115,800	8,200	1	1,120		12,280
Proc	o market	By truck	22,720		6,240		88,782	6,720	1,920	1,920	1	29,760	17,220			69,200	1	1	740		3,890
Production - net tons	Sold	local	9,521		2,147		13,701	920	5,460	5,460	1	ı	260			8,450	13,800	1	540		1,529
net tons	Used at	for steam	1		110		270	1	150	150	ı	ı	1			,	1	ı	1		120
		Total :	100,861 (b)	30,292	46,597 (d)	137,358 12,100 (g)	149,458	12,000 (p)*)	75,816	75,816	(*)	29,760 (1)	18,000 (p)*)	132,416 (c)	31,744 (c)	193,450	22,000 (p)		2,400 (c)	15,612 (g) 2,207	17,819
	Pounds	powder	١.	1 1	1	1.1	1	٠,	1.1		1	ı	1	1	1 1	1	1	1	1	1.1	1
	Pounds	dynamite	368,420	1.1	1	340,162	340,162	ı	5,600	2,600	1	1	ı	128,750	١ ،	128,750	ı	ı	1	100	100
Pounds	permiss-	plosives	1	14,150	14,150	1,100	1,100	ı		1	ı	,	1	1	1 1	1	1	ı	ı	8,900	8,900
		Days	207	136		225		176	170		101	224	306	191	146 61		253	216	37	193	
		Empl- acci-	79	12	29	79 24	901	22	25,	75	36	9	10	775	77	82	143	8	12	76	76
acc	dis- Fatal ability		1	1 1	1	1 1	1	ı	10	1	ı	1	1	1	1 1	1	1	ı	1	1 1	1
accidents	dis-	60 days	1	٦,	1	1 ~	2	ı	1 1	1		1	- 1	1	1 1	-	1	1	1	٦.	1

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	: black Pounds ible ex- : powder dynamite plosives Days Empl-acci- : used used worked oyes dents	3,000 166	- 198 60 - 212, 425 212, 148 - 124 125 148		5) 1,200 11,8 18	3) 49 11	5) 213 55	- 63,100 95,900 - 47,050 64,043	180	- 110,150 159,9h3	- 40,775 43,875 171	- 648,739	- 689,51h h3,875	(g) 225,300 11,8 122	- 22,300	z) - 2,163 81,550 196 629 - 337,054 - 196 76	- 339,217 81,550	
et tons Used at	colliery for steam Total and heat production	- 5,030 (e)	265,056	140 270,936	3,270 (5)	- 4,810 (a)	- 40,170 (p)	144,699 (b)	780,532)(k. 52,317)	7,133 1,111,910		184,181	942 308,489	32,404 (g)	35 35,282	122,671 (g) 188,496	235,796 4,073 546,963	(1) 000
roduct	: Shipped to market : to By : local f : railroad truck : trade	2,370 2,340 320	1	183,900 78,120 8,776	1,990 1,100 180	- 3,110 1,700	34,870 - 5,300			764,390 270,148 70,239			233,584 65,396 8,567		26,512 - 8,735		347,509 155,018 40,363	001
	Operators & collieries County	Millard Coal Co. Schuyl.	Mountain Top Coal Co. Carbon (B) " Stripping " Rank	Total for Co.	Mt. Laffee Coal Co. " Mine " Contracting Co	Stripping "	renna coal co. Penna (B) Philadelphia & Reading Coal & Iron Co.	Newkirk Tunnel "Oak Hill (B) "	Stripping " Silt	Total for Co.	Repplier Coal Co.	Stripping "	Total for Co.	Salem Hill (B) " Rank Rank "	Total for Co.	St. Clair (B) " Stripping "	Bank Total for Co.	Susan Coal Co.

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Non-fatal	accidents	dis- ability	60 days or more	1	1	1 1		36) tons							1	п	1	1	1
		Fatal	acci- dents	1	ı	1 1	1	-			and 88,500 to 25th district							1	1	ı	1	ı
			Empl- acci- oyes dents	7	다	17	62	3716		*	er, and	rict						ω	13	N	9	9
			Days	219	135	198 33				200+12 miles	as break	19th dis	93					305	21,7	248	245	220
	Pounds	permiss- ible ex-	plosives	1	1	! !	1	561,743	district	hannloon	d at St. Nichol (at Westwood	mines in	744,441 tons	39,389 "				ı	1 :	675	525	ı
		Pounds	dynamite used	1	1	1,600	1,600	1,983,513	Deep mined coal Goal prepared in the 20th district	Bank coal	JBM, 960 regard as measured of 5t. Witholas breaker, and 88,500 tons Stripping coal. (at Westwood	Coal purchased from small mines in 19th district	1 202	n I				ı	ı	1	1	ı
		Pounds	powder	1	ı	1 1	1	- 1	ed coal	1	tons pr	chased	oal #	£				ı	1	1	1	1
CONTINUED			Total : production :	25,546 (1)	*	25,175 2,425	27,600	3,088,863	(g) Deep mined coal (h) Coal prepared i			(p) Coal pur	Deep mined coal		icr			13,744 (a)	67,457 (a)	4,525 (b)	2,851 (b)	7,525 (a)
NINETEENTH DISTRICT, CONTINUED	tons	Used at	for steam and heat	1	1		92	13,255							TWENTIETH DISTRICT			8	1	21	13	1
NINEFEENT	Production - net tons	: Sold	: local : trade	1,185	,		1	203,743							TWI			13,461	3,623	1,27	269	1,200
	Produc	o market	By truck	15,564	ı		4,450	861,168		27th district									23,758	1	1	ı
		Shipped to market	By railroad	8,797	,		23,074	2,010,697			= =	ly "						223	940,04	4,077	2,569	6,325
				Schuyl.	±	: :	8	al		Buck Run brea	Salem Hill Glacier	Penna ation in Ju	let		ctor			Schuyl.	z.	ŧ	=	
			Operators & collieries County	Tamaqua Coal Pockets Tamaqua (B)	Winton Coal Co. Myrtle (B)	Stripping	Total for Co.	Grand total	(B) Breaker (*) Preparation plant	Coal prepared at	# # # # # # # # # # # # # # # # # # #	Discontinued oper	29 Operators in district 48 Operations "	17 Mines "	John H. Morgan, Inspector	Frackville, Penna.	Altamont Coal Co.	Breaker (B)	Breaker (B) .	Mine Wine Fingle Goal Go.	Mine Fire ewood Coal Co.	Breaker (B)
			0	H !									27	П	، ت	-1 14	×	4		, px	, н.	

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ac Fatal a Empl-acci-	ed oyes dents or more			53 15			253 8	280 8	- 8		240 5	71 891		142 61 1 -		124 1 -		246 5	20,5					80 15	- 64	983 – 21	240 8	5 59
118	used worked	51)		1	1		2,600 25	- 26	625 23		425 21	8.500		77	TT - 1	1		575 21	525 2)		299,475 16	-	-	1		299,475	11,025 28	100
Pounds dynamite	nseq	1 1		71,600	71,600		ı	2,600	225		750	100		1	9,076	8,076		ı	100		4,850	105,950	17,950	13,200	1	11,950	700	1
Pounds black powder	nseq	1 (1	1		1	1	1		ı	1		1	1 1	1		1	1		1	ı	1	1	1	1	1	1
,	production:	18,764 (4)	779774	24,002	75,900		6,790 (e)	6,744 (e)	3,579 (b)	(-) (-) (-)	2,310 (b)	10,583 (b)		1	27,828	102,008		3,175 (b)	2,191 (b)		414,104 (a)f)	99,380 (b)	19,843 (b)	19,441 (6)	53,126 (b)	605,894	9,102 (e)	162 (b)
Used at colliery for steam	and heat	- 740	3	1	750		ı	1	17	i	11	119	ì	1	132	1,86		15	10		2,237	546	109	107	292	3,291	1	J
Production - net tons Sold Used a set : to collies T : local for ste	trade	187	1	120	379	1	34	34	337	`	218	666		1	136	1194		565	207		14,951	10,965	2,189	2,145	5,862	66,112	917	15
Produ	truck :	5,648	79714	7,225	22,847		2,044	2,030	1		1	1		1	1 1	1		1	ı		1	ř	1	1	1	1	2,739	1
Shipped to market	: railroad	13,022	C42622	16,657	51,924	-	4,712	7,680	3,225	1	2,081	9,535	1000		27,560	-101,028-		2,861	1.974		366,916	87,869	17,545	17,189	46,972	536,491	6,317	146
	County	Schuyl.	1	= =			E	£	E		E	ŧ		E	E E			E	E		E	E	E	E	E		±	E
	Operators & collieries	Gilberton Coal Co. Gilberton (B)	Trema carce Dates	Stripping (Merry	Total for Co.	Grachowski Coal Co.	Wine Gulbinsky Coal Co.	Mine	Wine	Ivanowski Coal Co.	Wine Carl Carl Carl	Mine Mine	Kohinoor Coal Co.	Breaker (B)	Stripping Bank	Total for Co.	Kolis Coal Co.	Mine	Mine	Locust Coal Co.	Weston (B)	Bazley Stripping	Lubrecht "	Yaccino "	Kurchock "	Total for Co.	Mallio Coal Co.	Mine

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Non-fatal		Fatal ability 78 Empl-acci- 60 days	oyes dents	191 5		218 1	1210 1 2	202 1444 - 14 171 28	1900 2 27		152 5	62 5		69 111	2		301 13	18 9		/ 142	200 19 - 1	235 6	3431 3 53	
Pounds	permiss-	ible ex-		125 15		- 17	156,325		156,325		225 15	150 6		-	375 16		۳	- 50		72 479	9,500 20	3,500 23	496,225	eaker d coal
	_	Pounds dynamite		1		1	91,400	3,617,368	3,708,768		125			ı	75		1			707	2,100	1	3,937,269 496,225	Coal prepared at Gilberton breaker Includes 46,354 tons purchased coal Coal prepared at 56, Nicholas breaker
	Pounds	black	nsed	1		1	1	1 1	1		ı	1		1	ı		1	1		ı	1	1	1	ared at 16,354 ared at
TINOED		Total :	production:	1,549 (b)		•	376,431 (a)g)	156.297 (g)	942,672		1,331 (b)	(q) 17 15		150,788 (a)	2.566 (e)		45,200 (a)	145 (b)	100	3,925 (b)	13,700 (b)	1,199 (g)	2,088,159	(e) Coal prepared at Gilberton breaker (f) Includes 46,354 tons purchased coal (g) Coal prepared at St. Vitholass break (f) Propared at St. Vitholass break (f)
Production - net tons	Used at	colliery for steam	and heat	7		ı	38,955		38,955		N	3		ı	ı		200	1	r	or	79	1	43,977	
Production - net tons	Sold	: to	: trade	341		,	55,076	66,904 25,508	347,1488		126	덗	1	1,250	13		1,000	13	0	370	1,292	196	240,099	
Proc	-	Shipped to market	truck	ı		,	16,636	20,210	14,551			1		ı	772		14,000	1			1	58	112,799	g
		: Shipped	: railroad	1,396		1	265,764	322,830 123,084	711,678		1,200	1490	1	149,538	1,781		30,000	131	20,20	155,531	12,344	945	1,691,284	aker
			County	Schuyl.	•	t	E	= =	.00		t	=	1		E	1	=	E	:	:	=	E		ton bre
			Operators & collieries County	Petrock Coal Co.	Philadelphia & Reading	St. Nicholas (B)	Maple Hill	Shehandoah Stripping St. Nicholas Bank	Total for Co.	Pronio Coal Co.	Mine Perebilish Cosl Co	Mine	Reading Briquet Co.	Sarra Coal Co	Mine	덚	Schampler (S)	Hine (h)	Slominsky Coal Co.	Stauffer Coal Co.	Mine Snowbon Conl Co	Wine war of	Grand total	(B) Breaker (a) Deep mined coal (b) Coal prepared at Weston breaker (c) Included with Lawrence Strinning employee

^{1,170,984} tons 653,566 " (f) Includes 46,354 tons purchased coal (g) Coal prepared at St. Micholas breaker (h) Discontinued operation in January Deep mined coal Stripping " Bank "

28 Operators in district 40 Operations " 22 Mines "

TWENTY-FIRST DISTRICT

				TWEN	TWENTY-FIRST DISTRICT	STRICT						~	Non-fatal
			P	oduction	Production - net tons				Pounds			0	accidents
		Shipped to	o market	Sold to	Used at colliery		Pounds black	Pounds	permiss- ible ex-	Davis	Franci	Fatal	dis- ability
Operators & collieries	County	: railroad	truck :	trade	and heat	production :	nsed	nsed	pesn	worked	oyes	dents	or more
Adelphi Coal Mining Co.													
Washery (B)	Schuyl.	91,963	ı	ı	ı	91,963 (c)	ı	ı	ı	128	38	ı	•
Stripping	E	750	2	,	,	(q) 008	1	1	,	91	12	1	,
Borelli Coal Co.													
Mine	ε	200	120	1	ı	(h) 620	ı	ı	001	15	6	ı	,
Bosack Coal Co.	E	7 330	1 600	101.		0 05l, (h)	1	000	000	137	17	1	,
Branch Coal Com		0000	7,000	757	1	7,004 (11)	•	2003	00060	-	Ŧ		1
Branch (B)	E	1,890	325	,	35	2,250 (a)	ı	300	200	15	, 29	ŧ	١
B. & W. Coal Co. Breaker (d) (B)	ε	4,160	7,601	820	,	12,581 (a)	,	,	ı	280	1 0	1	,
Cano, Ray		0		ì		1,000			000	6	o		
Wine (t)	E	3,250	1.01	2	ı	(H) 100.4 (H)	ı	1	9,000	2	α	1	ı
Chornack Bros.	ε	200	80	ı	ŧ	280 (h)	1	ı	150	29	N	1	\$
Dantas, Alfred	:	000	0,00	2		100 100		0	000	0	•		
Mine	=	026,9	3,000	205	ı	TO,482 (n)	ı	059	000,	503	27	ı	1
Dikenzo Coal Co. Breaker (d) (B)	£	2,056	4,752	8140	00	7,656 (a)	1	,	ı	238	N	1	1
Coal													
Breaker (d) (B)	ŧ	2,607	4,235	1,525	15	8,382 (a)	ı	ı	ı	148	6	1	r
Mine	ŧ	2.240	3,100	188	1	5,528 (h)	1	,	6,500	279	6	ı	1
Farley & Laychack													
Mine	E	6,985	13,970	6,985	ı	27,940 (e)	ı	1	000,44	280	18	ı	ą
regley & Tretter	Ε	1, 200	1,84	200	-	5 885 (h)	1	,	6 500	21,7	α	_	
Cauntlett. Roy. & Co.		î	\\ \tag{1}			(m) (m)			20/62		•		
Mine	£	1	1,350	ŧ	1	1,350 (h)	ı	,	840	195	w	1	
Contarchick Coal Co.			1			1		1					
Wine Geel Ge	E	4,110	1,228	200	ı	5,538 (h)	ı	350	3,700	81	77	ı	
Mine	Ε	3,550	5,186	150	,	8,886 (h)	1	1	9,000	292	6	١	
Hamilton Construction Co	• • •	1	1	1		1				e e	į		
Stripping	=	8,500	4,555	720	ı	13,505 (1)	ı	1	1	62	21	1	
Mine	=	2,480	968	220	1	3,596 (q)	1	1	4,350	217	9	1	1

CONTINUED
DISTRICT.
TWENTY-FIRST

Pays Patal Patal				TWEN	TY-FIRST	TWENTY-FIRST DISTRICT, CONTINUED	CONTINUED							Non-fatal
$\begin{array}{cccccccccccccccccccccccccccccccccccc$				Prod	luction -	net tons		1		Pounds				accidents
Schwitz Sys		: Shipp	sed to	market :	to	colliery	•• ••	Founds		permiss-			Fatal	dis- ability
Schuyl, 8, 455 3,534 450 200 12,639 (j) 11,1225 260 "			ad	By: truck:	local	for steam and heat	Total : production :	powder		plosi ves used	Days			60 days
111,129 30,492 4,50 200 12,095 (3) -	,		ì	7	-	000	(1) 00) 01			1	0,0			
10,	nuoc		551	3,534	450	700	12,039 (3)	ı		11,225	002	_	ı	1
114,199 30,891 5,760 1,006 151,856 (a) -	E	1		1.h72	,	ı	1.1.72 (h)	ı	١	275	141	9	١	
111,139 30,891 5,760 1,006 151,856 (a) 1,150 (k) 38										`		,		
111,139 30,891 5,760 1,006 151,856 (a)	E	6	8	250	ı		1,150 (k)	1		ı	38	15	1	ı
1,300		1,411	66	30,891	5,760	1,006	151,856 (a)	١	٠	71,100	199	300	ı	α:)
1,300 2,200 1,145 - 7,645 (h) - 2,700 8,000 251 2,159 331 68 - 920 (h) 975 6,300 201										•				
10	E	6,4	00	2,200	1,145	ı	7,645 (h)	1	2,700	8,000	251	ω	ı	1
820 590 60 - 1,460 (3) - 375 143 145 145 143	Ε	'		920	,	•	920 (h)	1	٠	909	104	w	1	'
1,450 590 50 1,460 1,1 2,155 1,13 1,145 1,14														
1,150 311 68 - 2,558 (k) - 2,358 (k) - - - 2,358 (k) - - - 2,300 2,000 - 10,885 (1) - 3,900 2,100 26,300 2,100 26,300 2,100 26,300 2,100 26,300 2,100 26,300 2,100 2,100 2,100 2,100 2,100 2,100 2,100 2,100 2,100 2,100 2,100 2,000 2,100 2,100 2,000 2,000 2,100 2,000	E	∞	320	290	_S	,	1,460 (1)	ı		375	143	20	1	1
1,440 3,145 300 - 10,885 (3) - 975 6,300 208	E	2,1	-59	331	89	,	2,558 (k)	1	٠	,	23	12	1	1
1,440 3,145 300 - 10,885 (4) - 975 6,300 208														
19,887 31,019 26 - 8,326 (3) 3,900 264 264 19,887 31,019 28,522 11,0 79,518 (a) 280 286 11,330 5,020 1,00 - 22,750 (3) - 600 - 60 61 61 61 61 61 61 61	E	7,4	읔	3,145	300	ı	10,885 (j)	1	975	6,300	208	7	ı	f
19,887 31,019 28,502 140 79,548 (a) - 2 280	E	6.9	0	2.100	26		8, 326 (4)	1	,	3.900	196	7		1
19,887 31,019 28,502 1µ0 79,5µ8 (a) 2 20 280				2016)	ı	(0) 0=(6)	1	ı	2016	1			
5,020	-	19,8	387	31,019	28,502	140	79,548 (a)	ı			280	12	١	1
5,020 boo - 22,750 (1) - 50 950 63 2,120 boo - 5,686 (f) - 19,000 129,000 100 18,055 b,000 800 142,255 (m) - 500 750 206 320 15 - 1,255 (m) - 1,200 b5 b5,017 - 1,827 (m) - 1,800 207 500 77 - 1,827 (m) - 1,850 72	•	. '	5						i	į		,		
5,020 400 - 22,750 (4) - 600 - 61 2,120 316 - 5,686 (f) - 19,000 129,000 100 18,055 4,000 800 142,255 (m) - 50 750 206 320 15 - 1,255 (h) - 1,200 45 45,471 6,596 546 238,562 (a) - 6,500 91,450 207 500 77 - 1,827 (h) 1,850 72	=	N	3	74		ı	(T) /thz	ı	5	950	6	٥	1	1
2,120 316 - 5,686 (f) - 19,000 129,000 100 18,055 4,000 800 142,255 (m) - 500 750 206 320 15 - 1,255 (h) 1,200 45 45,471 6,596 546 238,562 (a) - 6,500 91,450 207 500 77 - 1,827 (h) 1,850 72	E	17,3	330	5,020	700	1	22,750 (1)	١	009	,	19	15	1	- 1
2,120 316 - 5,686 (f) - 19,000 129,000 100 18,055 4,000 800 142,255 (m) - 500 750 206 320 15 - 1,255 (h) 1,200 45 45,471 6,596 546 238,562 (a) - 6,500 91,450 207 500 77 - 1,827 (h) 1,850 72		•												
18,055 4,000 800 142,255 (m) - 500 750 206 320 15 - 1,255 (h) 1,200 45 45,471 6,596 546 238,562 (a) - 6,500 91,450 207 500 77 - 1,827 (h) 1,850 72	E	3,2	22	2,120	316		5,686 (f)	ì	19,000	129,000	100	12	1	,
320 15 - 1,255 (h) 1,200 45 45,471 6,596 546 238,562 (a) - 6,500 91,450 207 500 77 - 1,827 (h) 1,850 72	E	119,4	C.	18,055	7,000	800	142,255 (m)	1	200	750	206	253	1	7
320 15 - 1,256 (h) 1,200 45 45,471 6,596 546 238,562 (a) - 6,500 91,450 207 500 77 - 1,827 (h) 1,850 72														
16,471 6,596 546 238,562 (a) - 6,500 91,450 207 500 77 - 1,827 (h) 1,850 72	Ε	6	20	320	15		1,255 (h)	ı		1,200	145	9	1	
500 77 - 1,827 (h) 1,850	=	185,9	640	174,24	965,9	546	238,562 (a)	1	6,500	91,450	207	392	1	7
	E	1,2	520	200	77	•	1,827 (h)	ı		1,850	72	70	١	•

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Non-fatal

			Produ	Production - net tons	net tons				Pounds			ed .	accidents
		: Shipped to market	o market :	Sold	Used at	••	Pounds black	Pounds	permiss- ible ex-			Fatal	dis- ability
		By	By .:	local	for steam	Total :	powder	dynamite	plosives	Days			60 days
Operators & colliberies County	County	: railroad	truck :	trade	and heat	production :	nsed	nseq	nseq	worked	oyes	dents	or more
Reilly, Chas. L. Banks (u)	Schuyl.	146,74	1	ı	1	47,941 (c)n)	- (5		1	95	70	1	1
Reilly, Eugene, & Co. Wine	E	1	840	1	,	(H) 078	1	ı	700	110	20	1	١
Reiner & Shellhammer Mine	E	η, 220	1.500	200	,	6,010 (1)	ı	100	2,295	230	. 6	ı	1
Renninger Coal Co.	=	9,135	2,931		81	12,147 (0)		,	16,500	215	22	1	1
Rickert Eros.	E	5,180	2,500	58	1	7,738 (1)	1	1	2,000	265	9	1	1
Rowbottom, James Mine	=	η,240	2,500	120	1	6,860 (1)	1	ı	3,000	21,0	7	1	1
Rushanan & Sons	ŧ	3,720	1,266	ı	1	4,986 (h)	1	1	5,000	262	₩.	ı	ř
Salem, James	r	1,530	2,000	108	ı	4,038 (h)	1	1,300	1,400	234	70	ı	ı
Schrader Coal Co. Breaker (d) (H)	F	1	1	1	1	1	1	1	1	1177	35	ı	1
Mine		5,300	3,500	136	ı	(4) 986°8	1	2,000	3,000	234	10	1	1
Washery (w) (b)	=	12,800	1,054	1	1	13,854 (c)	ı	ı	ı	94	56	1	1
Swatars Coal Co. Ereaker (d)	r	69,479	38,225	4,000	1	111,70¼ (a)	1	ı	1	276	17	1	
Waay, Frank	E	1	2,094	1	ı	2,094 (h)	ı	ı	2,000	285	72	1	1
T. E. T. Construc. Co.	E	51,600	30,035	1	1	81,635 (p)	1	ı	ı	185	15	1	
Mine Mine	E	14,797	698	1	ı	15,666 (r)	ı	75	11,250	151	36	1	1
Williams Stripping Co. Stripping	=	47,267	1	1	1	47,267 (F)	ı	145,500	ı	132	83	1	
Mine William	=	5,400	7,000	151	1	9,551 (h)	-	550	3,425	224	10	1	-
Grand total		928,959	562,999	64,822	2,831	1,292,611	1	181,350	474,985		1611	1	22
(B) Breaker													

TWENTY-FIRST DISTRICT, CONTINUED

soal shipped unprepared beaker boal prepared at Indian Haad breaker 13,995 tons at N. & N. breaker	 q) Coal prepared at Lamar breaker, 27th district q) To Cal prepared at Lohb, 15th district, and Westwood, 25th district t) Tiscontripured operation in Nav 	" September " February	" August " April	" June " Earch	" Jaly	963,502 tons 93,716 " 235,393 "
prepare t India	it Lamar it Lobb, peration	==	= =	==	±	1 1 1
(n) Coal shipped unprepared (o) Coal prepared at Indian Head breaker (p) 13,096 tons prepared at Westwood and	(q) Coal prepared at Lamar breaker,(r) Coal prepared at Lobb, 19th dis(t) Discontinued operation in May	(n)	(w) (x)	= = (x)	(ab) "	Deep mined coal Stripping " Bank "
(a) Deep mined coal (b) Stripping coal (c) Pank coal	(d) Preparation plant. Coal from small mines (e) Coal prepared at Live Oak breaker (f) Coal prepared to Extrader "	(F) " Lohb " 19th district (h) Various breakers	 (i) Coal prepared at six different breakers (j) " Stevens (Westwood) breaker, 25th district 	(k) " " Branchdale (Otto) " 27th " (1) " " Phoenix "	(m) " Schräder " (Also see note (f)	54 Operators in district 54 Operations " 39 Wines "

THENTY-SECOND DISTRICT

Non-fatal	dis- ability	60 days		ı	•	8		7		-			•			6	:	01		10		7	•	1	ı	1	1	ı	ч	1
		acc1-		•	١	١		١	1 1			1	ı			7		⊣ 1	1	-		1	1	1	ı	1	1	1	1	1
		Empl- oyes	ι	٨	70	50		77.	77	167	α	>	11	0	`	328	9	638	15	726		155)	717		108	23	099	70	10	7
		Days	182	101	198	209		177	177		r.lc	107	205	336		72		0,00	200			197	761 (203	57		252	275	177
Pounds	permiss- ible ex-	plosives	0,30	066,2	4,200	11,300		37,500		37,500	'	1	14,350			21,200	-	301,489		302,364		156,125	1		1	-	156,125	ı	1	ı
	Pounds	dynamite		ı	1	1		77,875	10,000	94,735	- 3	i	ı			43,975		L89 707	100,121	727,681		100,250	209,100		17,265	-	326,615	ı	1	ı
	Pounds	powder			ı	- 1		٠	1 1				ı	1		1		1 1		1		1	1 1	1	ı	1	1	1	ı	1
		Total : I	1 21.3 (4)	(B) (D) (T)	6,108 (b)	12,841 (c)		124,647 (d)	3,166	190,606	23 387 (a)	(a) 100°07	9,567 (a)	(+) 996 (+)	(*) 202-627	39,239 (a)t)		238,343 (t)	17,106	375,497		63,465 (f)	35,902 (f)	52,635 (f)	- 1	10,171 (f)	287,978	8,755 (t)g)	33,662 (r)	6,711 (h)
fuction - net tons	Used at	for steam and heat			ı	,		ı		1		ı	ı			200	100	11,934		31,934		431	- 603	1		- 70	1,965			1 ,
Production = net tons	Sold	Local		ı	1	1		1,525		1,525	7.12 71	197614	ı			657	,0,	12,590		12,596		10,829	100677	1	ı	1	32,488		1	1
Produc	mar	truck :	ole	747	ı			17,115	1 1	211,71		ı	1,913			13,080	{	514,24		52,512		25,060	() () () () () () () () () ()	ı	ı	1	711,055	8,755	1	ı
	Shipped to	: Fy : railroad	loc L	1,9374	6,108	12,841		106,007	3,166	171,966	7 8llo	0106	7,654	58.266		25,005		120,301	17,106	276,455		27,145	35,299	52,635	1	10,101	179,470	1	33,662	6,711
***	1-	County	Lando	• Taning	=	Columbia		Columbia	: =	•	Schuvi	•	Ξ	E		t	:	: :	=	•		Columbia	Columbia	Schuyl.	Columbia	=	٠.	Schuyl.	E	=
D C Schneider Inenector	216 N. Minth Street Ashland, Penna.	Operators & collieries	Farzak Coal Co.	Bender Coal Co.	Mine	Mine	inin	Centralia (B)	Suripping	Total for Co.	Columbia Coal Co.	00	Mine	Wesher Coal Co.	Coal	Packer #5 (s)	al So	Stringing (B)	Bank	Total for Co.	Hazle Brook Coal Co.	Continental)	" Stripping		Lid Valley (E)	r	Total for Co.	Hill Vue (F)		

CONTINIE	TO LET Y LES
DISTRICT	* * * * * * * * * *
TWENTY_SECOND	217

Non-I atal	dis- ability	60 days	9		1	1		-7	1	1	1	٣	1	1	1	1	7		ı	1	() ()	<u> </u>	^	ı			10			8	ı	1
ž ď	Fatal	acci-	,		1	ï		ı	1	1	1	7	ı	1	1	1	1		ı		ı	1	ı			1	1			ı	ı	1
		Empl- oyes	285	11.	777	200		103	75	00	247	289	742	77	15	10	831		3		379	173	23	32	17	7,	674		;	9	6	6
		Days	138	212	177	181		179	179	77	175	175	175	175	175	175			271		207	207	207	207	207	207				191	120	254
Pounds	permiss- ible ex-	plosives	146,700		1	1		35,825		1	60,915	69,935	- 1	1	1	1	166,675		1		61,200)	~	^	ı			61,200				7,525	4,650
	Pounds	dynamite used	1,856,700	11.1.	7006	1		18,850	560,069	1	25,278	29,022	312,928	319,672	- 1	1	1,265,819		1	1	330,525	٠,		(436,435	<u> </u>)	166,960			143,200	1	1
	Pounds black	powder	'			1		1	1	,	1	1	1	1	,	1	-		1		ı	ı	ı	ı	1	1	1			ı	1	1
		Total : production :	155,138 (u)	131 1.80 (4)	177 676 171	ı			147,361 (k)		101,057 (m)	116,022 (m)	100,653 (m)	102,823 (m)	124,970 (k)	15,800 (m)	759,797	,	93,118 (n)		258,996 (f)	60,100 (f)	43,390 (f)	44,146 (f)	23,113 (f)	30,930 (1)	1,60,675		:	146,054 (0)	5,092 (a)	19,134 (h)
t tons	Used at colliery	for steam and heat	1,969		ı	1		1	1,800	. 1	13,948	16,013	- 1	1	1	1	31,761		200		2,483	ı	ı (672	ı		3,155				i,	1
Production - net tons	Sold	local	541			1		1	2,357	. 1	1	ı	1	1	1	ı	2,357		4,030		ı	ı	ı	ı	1	-	1			ı	1	
Product	: market :	By : truck :	,		1			1	1	1	1	1	ı	1	1	1	-		7,606		ı	ı	ı	ı	1	1	-			1	1	1
	Shipped to market	By railroad	152,628	131 1.80	171,407	1		37,321	143,204	13,790	87,109	100,000	100,653	102,823	124,970	15,800	725,679		81,282	+	256,513	60,100	43,390	43,474	23,113	30,930	457,520			146,054	5,092	19,134
	() '	County	Schuyl.	Columbia		Schuyl.		ε	=	t	Schuyl.	Columbia	Columbia	Northumbd.	Columbia	E			Schuyl.		Columbia	Worthumbd.	Schuyl.	Columbia	Worthumbd.	SchuyL.		Div.		Columbia	Schuyl.	=
		Operators & collieries	Marmoth Coal Co. Marmoth (i)(B)	Morris Ridge Coal Co.	Otto Collieries Co.	Oakland (B)	Coal & Iron Co.	Hunter Tunnel	Bast Stripping	Bast Bank	Potts)		" Stripping		" Bank	Keystone Bank	Total for Co.	Pine Ridge Mining Co.	Willersville (B)	Raven Run Coal Co.	Germantown)	~		Stripping		=	Total for Co.	Susquehanna Collieries Div.	M. A. Hanna Co.	Logan Stripping	line	Stripping

Non-fatal		permiss- dis- 1ble ex- Fatal ability	Days Empl-acci-		16,000 254 17	7,200 235 7	- 190 12
		Pounds	dynamite		1	1	
		Pounds	powder		1	1	1
CONTINUED			Total :		8,932 (1)	5,232 (p)	13,301 (h)
WENTY-SECOND DISTRICT, (Production - net tons	Used at			1	,	1
Y-SECOND	ction -	Sold	local		1	ı	1
TWENT	Produc	Shipped to market :	By : local for		1	1	1
		: Shipped t	1		8,932	5,232	13,301
			County		Schuyl.	Columbia	Schuyl.
			Operators & collieries County	Tunnel Coal Co.		Ü	

					and 4,022 tons stripping coal.		
					1,022 tons		
	district			mines.	" and !		
	20th d			small	8		
B) Breaker	(a) Coal prepared at Gilberton breaker, 20th district	" Hammond "	" Centralia "	Includes 64,929 tons purchased from	(e) n 19,365 n n n n n s	(f) Coal prepared at Mid Valley breaker	
(B)	9	(P)	်	(d)	(e)	9	
					4	15	

Coal prepared at Glen Rurn breaker, 24th district Discontinued operation in May, after a mine fire Discontinued operation in October Columbia Bank coal E + @ + D D O Coal prepared at Weston (20th district), and Natalie (23rd district)

Deep mined coal

1,344,699 tons
1,206,424 "
301,199 "

Deep mined coal Stripping

Stripping

(k) Coal prepared at Oakland (22nd) & Locust Summit (23rd)

(n) " " "

(n) Includes 58,679 tons purchased from small mines and 31,1439 tons bank coal.

9

4215

- 5,370,585 959,339

2,852,322

71,484

71,738

2,533,715 175,385

Grand total

(g) Coal purchased from small mines
(h) Coal prepared at Weston (20th distinctly known as Raven Hill bre
(j) Coal prepared at

Formerly known as Raven Hill breaker

25 Operators in district 10 Operations " 25 Mines "

Mon-fatal accidents dis- ability 60 days or more	'	1	1	1	1	ı	1	-1	1	١		1		1 9	17	٩ I	1	10	v -#	32	١
Fatal acci-	1	ı	1	1	١	- 1	- 1	1	1	٠				١.	1	1 1	1	ı	١,٦	2	1
Empl- oyes	12	7	ω	7	7	7	ν.	æ	21	711	123	280	1	25 25 25 25 25 25 25 25 25 25 25 25 25 2	37	1309	64	916	164	2971	13
Days worked	212	216	358	232	231	204	358	98	164	135	555			175	175	33	8	175	175		92
Pounds permiss- ible ex- plosives used	1	7,900	1	•	725	5,700	1	,	1	15,000	- 157	15,125		90,113	20,004	500,607 -	1		57,050	456,852	1
Pounds dynamite used	1	1	٠	1	1	•	•	,	1,200	15,000	11/4,900	159,900			1 00	20,984	251,815	1.00	20,975	1,846,274	1
Pounds black powder used	- 1	1	ı	1	1	•	- 1	١	- 1	1		١			1		1	·		-	1
: Total : production :	100,116 (a)	3,855 (b)	136,839 (c)	37,000 (d)	2,524 (e)	2,940 (g)	5μ,818 (f)	23,727 (a)	29,848 (h)	91,604 (d)	113,207 (1)	205,24,1		235.631 (d)k)	21,260 (d)k)	5,796 (k)	24,127 (k)	98,576 (k)		1,370,241	80,084 (1)
TWENTY-THIRD DISTRICT uction - net tons : Sold Used at to colliery : local for steam : trade and heat	1	1		•		,	1		1	785	811	1,600		1,312		12,003	1	ı	10,095	26,140	ı
Production - net tons: Sold Used at the sold to sollies: t to collies: T : local for steel to trade and hea	1	1	1	200	,	•	,	1	•	8,005	10,037	18,080		8,326	765	210	9866	3,550	6,350	148,374	
	911,001	3,855	136,839	1,500	2,524	2,940	54,818	23,727	29,848	1 1		-		12,180	1,500	326	1,297	10,320	9,550	71,676	1
Pro Shipped to market By By railroad truck	1	1	1	35,000	1	ı	ı	ı	ı	82,814	102,359	185,561		210,183	18,995	5,260	21,964	190,500	160,843	1,223,751	80,084
pector :	Northumbd.	E		E			E	E	• 00		p. Columbia	r Co.	711 K	(b) Northumba.		A-lo "	A-lul "		E	r 60.	
John P. Brophy, Inspector LL2 W. Third Street Mt. Carmel, Penna. Operators & collieries County	Beadle & Rick Penna. Silt Bank	Mine	Banks	Breaker (B)	Wine	Mine Lailerida	Kelser, J. B., & Son Silt Bank	Little & Shecora Silt Bank (m)	Stripping	Natalle (Dal Corp. Natalle (B) Brennan Wine (C)	Morris Ridge Strip.	Total for Co.	Coal & Iron Co.		Independents	" Strip. A-40	= :	Monitor Strinning	Reliance	Propose Constant Co.	Alaska Bank (p)

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		TWEN	TY-THIRD	IMENTY-THIRD DISTRICT, CONTINUE	NTINUED						~	Non-fatal
		Prod	Production - net tons	net tons				Pounds				accidents
			: Sold	Used at		Pounds		permiss-				dis-
	: Shipped	Shipped to market	to	colliery	••	black	Pounds	ible ex-			Fatal	ability
	: By	By	: local	for steam	Total :	powder	dynamite	plosives	Days	Empl-	- acci-	60 days
Operators & collieries County	r : railroad	truck	: trade	and heat	production:	nsed	nseq	nsed	worked	oyes	dents	or more
Politiko & Ladika												
Mine Northumbd.	3,907	1	1	1	3,907 (1)	1	1	882	234	7	1	ı
Reading Briguet Co.												
Breaker (B) "	1	1	1	ı	1	1	1	1	119	79	1	1
Sanchez Construc. Co.												
Stripping	1	14,232	ı	ı	14,232 (1)	1	2,500	1	105	28	1	1
Susquehanna Collieries Div.												
M. A. Hanna Co.												
Brennan Northumbd.		1,495	767	ı	9,986 (d)n)	ı (1	2,500	221	19	ı	ı
Burke-McGrath Strip. "	7,341	1,375	1,58	1	9,174 (n)	ı	950	. 1	163	17	1	1
Capitol Stripping "	18,420	3,455	1,152	1	23,027 (n)	ı	14,651	1	69	56	1	1
Hickory Ridge (q) "	4,075	775	255	63	5,168 (d)n)	ا (125	2,125	89	27	1	1
Hickory Swamp	17,770	3,416	1,115	124	22,425 (d)n)	1	1,575	9,825	191	38	ı	7
Martines-Bridy Strip. "	6,216	1,165	388	1	7,769 (n)	ı	200	. 1	64	21	1	1
Penn-Rich Strip. (r) "	9,325	1,735	578	ı		1	200	1	19	27	1	ı
United Constr. Strip. "	16,140	2,820	866	1	19,958 (n)	-	1,200	1	104	16	1	1
Total for Co.	87,283	16,236	5,439	187	109,145	1	19,501	14,450		185	1	1
Grand total	1,615,586	458,311	72,393	28,227	2,174,517	- 2	- 2,029,375	501,634		3630	8	34

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r, 24th district

Coal sold unprepared to Penna. Power & Light Co., Penna. Plant " Neumeister & Dolan breakers, 22nd district

Coal sold unprepared to Penna. Power & Light Co., Locust Gap Plant prepared at Savitski Bros. breaker Deep mined coal Coal E PE PE E

Coal prepared at D. & Z. Breaker, 24th district 12,045 tone prepared at Natalie, 13,676 tone at Glen Burn (24th), and 4,127 tons at Millersville breaker (22nd)

16 Operators in district 33 Operations "

Coal prepared at Zerbe breaker, Stevens Coal Co., 24th district 7,026 tons prepared at Natalie and 7,206 tons at Locust Summit Locust Summit breaker SEEEEEEE

Coal prepared at Glen Burn breaker, 24th district Discontinued operation in July

Operated as a four man mine after February 15.

Mine abandoned, coal exhausted, in July Discontinued operation in August Discontinued operation in April 1,212,624 tons 467,733 " 494,160 " 1 1 Deep mined coal Stripping Bank

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Non-fatal	accidents	dis- ability	60 days	a more	,	•	ı	-		1			,	٠		1		,		,			
Non	acc	Fatal ab			1	ı		1	,	,	1	,	,		,	1	,		1	,	1		
			Empl- a	1	00	18	24	10	ν.	9	10	7	13	6	36	70	10	27	9	12	7	큐	80
			Days	MOT VEG	8	305	130	250	295	300	272	259	307	82	300	221	263	178	230	281	159	566	289
	Pounds	permiss-	plosives	Doen	500	10,000	,	1	1	1	1	1	1	1	1	,	9,875	4,750	11,500	006	,	2,700	1
		Pounds	dynamite	noen	1	,	200	1			ı	1	,	1	1	1		4,200	1,800	1	1	2,100	,
		Pounds black	powder	naen	1	1	1	ı	1	1	1	1	1	1	ı	1	,	1	1	ı	ı	1	1
	1				1,400 (a)c)	(c)d)	(e)	(c)	(°)	(e)	(c)	(c)	(c)	(c)	(e)	(°)	(f)c)	(g)	(h)	(°)	(e)	(c)	(°)
£			Total	bi oddesto	1,400	18,028 (c)d)	20,000 (e)	16,022 (c)	6,746 (c)	1,2,4,39 (c)	52,835 (c)	32,820 (c)	65,152 (c)	3,903 (c)	180,830 (c)	23,241 (c)	7,361 (f)c)	15,057 (g)	5,389 (h)	36,700 (c)	6,935 (c)	8,793 (c)	25,250 (c)
TWENTY-FOURTH DISTRICT	st tons	Used at	for steam	200	ı	1	1	300	. 52	1	84	S,	,	1	1,600	1	1	1	1	200	1		,
WENT Y-FO	Production - net tons	Sold	local	200		1	1	6,565	235	1	3,055	5,049	,	2,167	1,200	1000	1	1	1	,	835	8,793	1
T	Produc	market :	By :	·	1,400	18,028-	20,000	,	5,300	26,607	34,712	1,487	1	1	1	20,991	7,361	1	5,389	29,170	4,000	1	25,250
		Shipped to market	By	7	1	,	1	9,157	1,186	15,832	15,020	26,234	65,152	.1,736	178,030	1,850	1	15,057		7,330	2,100	1	1
	or	** **	County	·	Northumbd.	E	=		E		ŧ	ŧ	E	E			ŧ	ŧ	8			z	
	Jos. R. Ruane, Inspector	922 Washington Street Shamokin, Penna.	Operators & colliandes Country	מלפי שמסים בי מחידוני דיפו	B. & D. Coal Co. Black Bear (b) P	boslego	Stripping	Dancott Coal Co. Dancott (B)h)		Breaker (B)h)	Washery (B)h)	Breaker (B)h)	Latsha Loan Lo.	Mine	Mine Mine	Breaker (B)h)	Breaker (B)h)	Mutual (B)	Breaker (B)h)				

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accidents	dis- ability	60 days	OI MOTO		٠		1	'	1	١	1	•	١	'	1	7		٠ ،	1	1	2	4	1	1	ı	1 1	1	1
9	Fatal	acci-	College		1			' '		•	1		1	1	1	1	ı		١	1	1	١	1	ı	ı	1 1	1	1
		Empl- acci-	2363		33	3 5	⊋ ~	28	136	N	7	35	ν.	12	Ç	25	63	300	(ω	7	181	177	128	요;	1 %	25	8	Ħ
		Days	TOT VOI		걲	2,2	2 6	777		139	263	231	172	306	177	177	175	19	67	%		171	171	נני	₹ [1)10	977	146
Pounds	permiss-	plosives	neen		1	1 1		٠,	,	1	,	1	1	,	,	13,298	9,316	۱ ۱	185	1	22,799	1	1	ı	í	000	6,200	6,300
	Pounds	dynamite	naen		121,700	327,063	066673	٠.,	471,513	,	,	13,400	,	,	٠	8,866	13,974	1.980	<u> </u>	-	24,820	ı	691,475	21,14,200	2,144			,
	Pounds	powder	neen		ı	1	. 1	1	1		1	•		١	•	١	ı		1	1	-	1	1	ı	1	1 1	1	1
		Total :	produceron :		88,724 (g)	14,013 (8)	12, 500 (B)	136,182 (1)	332,225	2,440 (e)	22,861 (c)	52.942 (1)	5,750 (c)	26,895 (c)	. 1	50,373 (c)	52,931	0,000	1,120	55,449	170,544	1	301,848 (1)	71,484 (1)	9,355 (1)	236,096 (1)	9,796 (1)	7,923 (1)
et tons	Used at	for steam	anio ilean		1	1		1	-		25	8		50	,						1	1						
Production - net tons	Sold	local	orana		,			١.,		07/9	30	1,986	ì I	,	,						1,490	,						
Product	: arket :	By	range :		1	ı	ı		-	1.800	20.078	9.747	5,750	6,500							4,468							
	Shipped to market	By	rattroad		88,724	14,013	32,300	136,182	332,225	ı	2,458	38,11,9	į į	20,375							164,586							
			Cherators & collieries county :	Philadelphia & Reading Coal & Iron Co.	Hepburn Stripping Northumbd.	Bear Valley S-3 Strip. "		Henry Clay Bank	Total for Co.	Quality Coal Sales Co. Breaker (B)b) "	Coal	-C	Sa	a1 (Steam Coals, Inc. Rreaker (R)h) "	Je I	Hickory Strip.	Shamokin Fycey Strin #	Reiner Mine	Burnside Bank "	Total for Co.	Stevens Coal Co.	A.F. Dick Stripping "	Capparell " "	Foleri	Kessler Bank	North Buck Mine	West End Mine

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		TWEN	TWENTY-FOURTH DISTR	TWENTY-FOURTH DISTRICT, CONTINUED	CONTINUED			op man			_	Non-fatal
	1	rroanc	TOU - HOLD	Treed at		Downste		Founds			~	accidents
	Shipped 1	Shipped to market	to local	colliery for steam	Total	black	Pounds	ible ex-	Davs	Emp1-	Fatal acci-	ability.
Operators & collieries County	: railroad	truck	: trade	and heat	production:	nsed	nsed	nsed	worked	oyes	dents	or more
lo., Cont												
Konyar Mine Northumbd.					6,242 (1)	ı	ı	000,1	917	9	1	ı
Brennan-Taby Mine						ı	ı	7,200	146	6	1	٦
Springfield " "					7,694 (1)	ı	1	4,200	133	Π.	1	ı
Independent Mines					-1	1	-	15,460	146	647	1	1
Total for Trev. breaker	593,225	67,059	32,014	358	689,626	1	937,819	49,360		527	1	77
Coal Co.												
Zerbe (B)h) Northumbd.	1	1	1	ı	1	ı	ı	ı	185	89	1	ı
Burnside Bank					145,443 (m)	ı	ı	1	185	13	1	1
Trevorton Bank					112,380 (m)	ı	ı	ı	185	ੜ	1	ı
Henry Clay Bank					111,547 (m)	1	-	1	185	Ξ	1	1
Total for Zerbe breaker	369,179	-	-	191	369,370	1	1	1		106		1
Total for Stevens C.Co.	962,404	64,029	32,014	549	1,058,996	'	937,819	49,360		633	1	70
Katherine (B) Northumbd.	1,982	7,160	20,01	300	19,557 (0)	1	300	9,500	221	77	1	. 1
Susquehanna Collieries Div.												
		;										
Glen Burn (B) Northumbd.	205,413	165,532	62,596	3,579	437,120 (c)	1	99,905	94,192	194	719	ı	9
Maysville #1	120,781	1	ı	588		ا آ	18,525	63,775	194	22h	ı	٣
Maysville #2	76,245	1	1	147		1	12,925	34,725	194	12,		٣
Zerbe Stripping	5,818	1	1	1	5,818 (n)	ı	1,000	1	36	17		1
Bear Valley "	7,102	1	1	1	7,102 (n)	1	2,500	ı	8	디	ı	ı
Scott #I #	2,753	ı	1	1	2,753 (n)	1	1,000	ı	£3	17	ı	ı
Scott #2	6,981	ı	ı	1	6,981 (n)	1	1,500	ı	7	17	ı	ı
5. % J. Mine	2,000	1	-	1	2,860 (n)	1	800	1,000	120	9	ı	1
Total for Co.	427,953	165,532	62,596	4,015	960,099	1	138,155	193,692		8/11	1	12
Swift Coal Co. Breaker (B)h) "	1	30,1437	1,500	1	31,937 (c)	1	1	1	30h	10	ı	,
Connect to the	750 000 0	700 700	010 515		112 000		1-1					
Fand total	2,286,816	515,196	141,940	7,192	2,953,144		- 1,594,607	315,276		2427	1	20
				٥) Coal prepared at Natalie breaker. 23rd district	at Nate	lie breake	r. 23rd dis	strict			
	breaker			, E,		" Reic	Reidinger "					
(b) Discontinued operation in March (c) Wine coal	ırch			Je	E =	" Locu	st Summit	Locust Summit breaker, 23rd district	3rd dist	rict		
(d) Coal prepared of Rogini brooker	Lon			23		CHICA .	Ulminick breaker	er				
	Javi			٠٠) surbbed unprepared	pared						

(e) Coal prepared at Matalie breaker, 23rd district (f " " Reidinger" (g) " " Locust Summit breaker, 23rd district (h) " Emipped unprepared (d) Shipped unprepared (d) Stripping coal.

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Non-fatal	accidents	dis-	ability	60 days	or more
			Fatal	Empl- acci-	dents
				Empl-	oyes
				Days	worked
	Pounds	permiss-	1ble ex-		
				dynamite	
		Pounds	black	powder	nsed
CONTINUED		••	••	Total :	**
ENTY-FOURTH DISTRICT,	oduction - net tons	Used at	colliery	for steam	and heat
Y-FOURT	ion - noi	Sold	to	local	trade
TWENT	Product		market :	By :	truck :
			: Shipped to market	: By	: railroad
					County
					collieries
					erators &

(k) Included in breaker figures
(1) Coal prepared at Trevorton breaker
(m) " Zerbe "

(m) arm prepared at irevation or (m) 30 Operators in district 62 Operations m

in Orener inguesker ard at Trevorton breaker 2 Zerbe in district

(n) Coal prepared at Glen Burn breaker
(o) Includes 16,357 tons mine coal and 3,200 tons stripping coal

Deep mined coal - 1,121,089 tons
Stripping " - 731,956 "
Bank " - 797,997 "

TWENTY-FIFTH DISTRICT

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ഉ 0 2 æ 506 2116 148 202 268 102 211 273 E 135 4,250 2,300 5,000 1,000 1 250 44,642 3,000 r 1 (n(s) 610,67 394 (c)1) 9,450 (e) 3,732 (f) 2,688 (b) (p) 896,4 21,459 (c) 5,148 (c) 558 120 25 8 88 1,316 52 69 27 9,825 51 717 2,575 538 67,320 2,150 18,455 4,685 4,154 7,571 3,117 Schuyl. Sanks, Jos., Constr. Co. (B) A) (B)▼) Deaven, Francis Cutler, Steven Bixler, Oscar Deaven, David Brown, Robert Ecco Mfg. Co. Fronk, George Erdman Bros. Stripping Blyler, Roy Stripping Superior Oakwood Wine Mine Wine Wine

Sordon E. Smith, Inspector

760 Main Street

Lykens, Penna.

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			Produ	Production - net tons	net tons				Pounds			a ed	accidents
		: Shipped to	mar	: Sold			Pounds	Pounds	permiss-				dis- ability
Operators & collieries County	County	: By : railroad	By truck	: local : trade	for steam and heat	Total : production :	powder	dynamite used	plosives	Days	Empl-acci- oyes dents	acci-	60 days
Good Peoples Coal Co. Breaker (B)v)	Dauphin	1	1	1	1		1	ı	1	283	00	1	ı
Goodspring Contrig. Co. Stripping		6,708	4,652	273	31	11,664 (g)	1	10,200	5,325	78	10	1	1
Hentz, Reuben	E	8.950	3.762	1),0		12,95l ₁ (h)		10.00		25.	13		
Herb, Allen	ŧ	207	5,929	113		6,272 (1)	1	·	5,300	287	, ∞	- 1	
Herring & Spancake Mine	E	5,696	795	98		6,623 (c)	1	000,9	1	254	7	1	•
High Test Coal Co.	E	2,362	8,400	2,309	53	13,124 (5)	1	1	20,000	285	7	1	2
Hinchey & McGinley Stripping	Ε	25,052	10,322	1,082	182	36,638 (k)	- 1	10,800		290	28	- 1	ı
Huss, George Stripping	E	84,349	077,11	1,275	989	98,080 (c)	- 1	136,200		198	43	- 1	ı
(B)	Lebanon	21,763	ı	1	1	21,763 (1)x)	1	1	1	226	7	1	1
(B)v)	Schuyl.	1	1	1	1	1	1	ı	1	287	10	1	ı
Legal Coal Co.	E	1	1	1	1	1	1	ı	1	295	13	1	ı
Markson Coal Co.	E	61,023	86,958	4,577	350	152,908 (y)	1	1	109,675	190	377	п	ω
Red Oak (B)v)	=	1	ı	1	1	1	1	1	1	184	6	1	ı
Mine Mine	E	1,994	666	56	15	3,064 (m)	1	1	2,500	101	9	1	ı
Breaker (B)v)	E	1	ı	1	1	i	1	1	1	221	22	1	•
Mine	E	3,074	1,29	917	25	3,574 (c)	1	1	4,200	190	∞	1	1
Mine	£	534	75	œ	7	621 (c)	1	1	100	16	12	1	1
Morgan, koy	E	3,670	512	55	30	4,267 (c)	1	3,960	1	174	7	1	1

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			Product	Production - net tons	t tons				Pounds				accidents
			-	Sold	Used at		Pounds		permiss-				dis-
		: Shipped to market	By:	local	for steam	Total	black	Pounds	ible ex-	Dave	Fatal Fmrl- acci-		ability 60 days
Operators & collieries County	County	: railroad	truck :	trade	and heat	production :	nsed		pesn	worked	oyes	dents	or more
Moyer, Lloyd	Schuyl.	2,689	1,516	101	19	4,325 (n)	1	,	10,400	238	Ħ		1
Otto Miners		น	621.9	100	36	(206 (2)		1. 200	00,	, and	;		r
Philadelphia & Reading		24.5	0,166	507	07	(z) 06160	ı	4,350	00T62	063	╡		4
Coal & Iron Co.													
Porter Tunnel	E	1,	ı	1	1	*	1	43,850	200	232	7	,	1
B	= :	16,917		1	1	16,917 (#)	1	ı	ı	02.	22	1	ı
Sheridan (B) Bank Screenings		140,297	1,461	158	8 %	140,357 (1) 12,183 (c)	- 1			ਜੂ '	85		1 1
Total for Co.	•0	167,693	1,461	158	岩	169,457 (p)	1	43,850	2005		148	1	
Pine Creek Coal Co.							1		1	238	=		
8		,					1	ı	,	200	†		1
Stripping		1,279	178	19	п	1,487 (c)	1	200		52	₩		1
Mine Mine		1, 421	198	22	12	1,653 (c,	1	•	3,050	88	9		1
Reilly, Chas. L. Bank		1,486	207	23	12	1,728 (c)	ı	1	,	16	œ	ı	1
Rhoads Contrig. Co. Franklin-Lykens (B) Dauphin	Dauphin	47,641	8,269	5,401	78	61,389 (1)	1	,	,	500	75	1	3
, Co.	Schuyl.	5,886	1,283	18	89	7,255 (q)	1	1	9,850	235	7	ı	ı
Sanches, Alonso Stripping	E	3,257	2,933	137	15	6,342 (r)	١	3,000	1	75	10	1	1
Stripping		3,130	437	147	25	3,639 (c)	1	ı	1,600	121	Ŋ	1	1
Breaker (B)v)	ε	,	1	ı	1	1	1	ı	ı	248	10	ı	1
Stripping	E	65,203	86046	986	530	75,817 (c)	ı	79,644	1	174	35	ı	1
Mine Wine		2,497	5,586	267	11	8,361 (8)	1	1	10,400	250	10	1	7
Stripping	E	2,516	351	38	20	2,925 (c)	1	700	ı	112	٧	ı	١
Mine Lawrence		9,353	1,305	142	92	10,876 (c)	1	1	3,900	303	æ	1	1

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			Prod	Production - net tons	net tons				Pounds			4	ccidents
				: Sold	Used at		: Pounc	83	permiss-				dis-
		: Shipped	Shipped to market	to to	colliery		: black		ible ex-			Fatal	ability.
		: By	By	: local	for steam	Total	: powder	r dynamite	plosives	Days	Empl-	acci-	60 days
Operators & collieries County	County	: railroad	truck	trade:	and heat	production	: usec		nsed	worked	oyes	dents	or more
Stevens Coal Co.													
Westwood (B)v)	Schuyl.	1	1	1	,	1	-	- 350	ı	165	173	ı	2
Stump, Franklin B.										`	ì		
Mine	E	7,464	1,773	1	93	9,330 (b)	·	550	8,000	223	16	ı	1
Zinmerman, Ray													
Mine	£	7,091	2,144	174	53	9,462 (t)	·	4,250	9,600	222	19	1	1
Zimmerman & Wenrich								•					
Mine	£	3,433	479	52	28	3,992 (c)	۰ (2,625	985	100	œ	ı	1
Grand total	7	665,754	665,754 194,567	19,539	3,684	883,544	1	364,571	364,571 218,810		1241	2	12

763 tons prepared at Markson breaker, 3,584 tons at Franklin-Lykens, 74,672 tons at Westwood breaker Coal prepared at Lamar breaker, 27th district 0 Q B

Westwood breaker

Breaker

256 tons prepared at Markson and 4,712 tons at Westwood breaker 1,695 tons prepared at Westwood, 7,617 tons at Lamar (27th), and 138 tons at Roy Blyler breaker (g)

and 89 tons at Lamar (27th) Leon Kocher, 53 Markson and 3,532 tons at Westwood breaker 1,567

197 tons at Legal & 149 tons at miscellaneous small brkrs.

lub tons prepared at Legal, 12,653 tons at Markson, μ,157 tons at Franklin-Lykens and 19,382 at Westwood breaker Coal prepared at Legal breaker Bank coal

102 tons prepared at Hoy Blyler breaker, 169 tons at Leon Kocher breaker, 815 tons at Markson, 1,814 tons at Westwood and 74 tons at Lamar.
189 tons prepared at Marthia & Keating, 1,675 tons at Frankin Millars, 1,139 tons at Materiood and 1,124 at Lamar.
18,664 tons "Leon Kocher, 1,86 tons at Markson, 1,50 tons at Lamar, 221 tons at Material material preakers
1,360 tons "Loop prepared at Merkson, 1,965 tons at Beridan, and 12,183 tons at Westwood, 1,695 tons at Lamar and 12,183 tons at Westwood, 1,695 tons at Markson, 1,860 tons at Merkson, 1,860 tons at Merkson, 1,860 tons at Merkson, 1,860 tons at Markson, 1,86

Includes 80 tons of bank coal

Included in Westwood breaker figures Preparation only E Coal prepared at Leon Kocher breaker

This coal will be credited to Schuylkill County, as we have no Lebanon County compilations. Includes 129,971 tons mine coal and 22,937 tons stripping coal

TWENTY-FIFTH DISTRICT. CONTINUED

			Prod	action	roduction - net tons				Pounds			accident
				Sole	1 Used at		. Pou	nds	permiss-			dis-
		: Shipped to	market	to			: bla		ible ex-		Fati	1 ability
		By By : local	By	local	Il for steam	Total	: powder	der dynamite	plosives	Days	Empl- acci-	- 60 days
Operators & collieries	County		truck	: trade			sn :		nsed	worked	oyes den	s or mor

from mines employing less than five men, and 304,288 tons shipped in from other districts, a total of 720,904 tons.

LAB Operators in district 51 Operations " 29 Mines

286,533 tons 342,200 " 254,811 " 1 Deep mined coal Stripping Bank

IWENTY-SIXTH DISTRICT

John B. Reinoehl, Inspector 31 E. Mahanoy Avenue Mahanoy City, Penna.

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172	73	245		9		77		6		6		Ħ		20		T.		50
101	228			566		21/12		294		252		11,8		270		192		123
21, 500	6,900	31,400		2,800		2,200		11,400		1,550		10,400		1,500		2,000	•	775
27.950	203,680	231,630		7,00		100		7,600		825		5,200		1		200		700
,	1	1		1		,		1		1		1		1		1		1
(a) (c)	97,868 (b)	166,422		3,016 (c)		2,607 (c)		7,398 (d)		5,301 (c)		7,071 (d)		3,290 (c)		2,755 (e)		3,491 (c)
1.07	3,360	4,431		1		1		1		1		1		1		1		1
2.66)	4,265	6,929		1		1		37		1		36		1		1		1
1, 775	7,823	12,598		1		1		2,227		1		2,128		1		2,755		1
60.00	82,120	142,464		3,016		2,607		5,134		5,301		1,907		3,290		1		3,491
Schuvl	=	for Co.		E		2		E		Ε				2		E		=
Alpec Coal Co.	Springdale Strip.	Total for Co.	Becker & Co.	Mine	Biros & Co.	Mine	Blaschak & Co.	Mine	Boner & Co.	Wine	Brehony & Co.	Mine	Brokenshire & Co.	Mine	Dasey & Co.	Mine	Dern Coal Co.	Mine

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			Producti	Production - net tons	tons				Pounds			æ	accidents
	** *	+	***	Sold	Used at	••	Pounds	Denne	permiss-				dis-
	•• ••	By By	By	local	for steam	Total	DOWder	dynamite	plosives	Davs	Fmpl-	ratal acc1-	ADITITY 60 days
Operators & collieries County	- 1	: railroad	truck :		and heat	production :	nsed	nsed	nsed	worked		dente	or more
ch & Co.								1	į		1		
Gasparini Coal Mng. Co.	ıyı.	1,372	ı			1,372 (c)	ı	5.	920	273	2	1	1
Tunnel Ridge) Strips.	E	54,954	124,12	355	1	76,730 (f)	1	202,197	,	215	79	1	1
Various Banks	E	4,916	2,132	36	1	7,084 (4)	1	1	1	134	62	1	1
Gilberton Coal Co. Various Banks	=	2,412	1,046	18	1	3,476 (d)	1	ı	1	18	12	1	1
Mine (t)	E	357	155	3	1	515 (d)	1	ı	200	%	72	1	1
John Jones Coal Co.	E	1	995,9	ı	1	6,566 (g)	1	100	2,100	274	9	1	1
Jones Coal Corp. Buck Mtn. Stripping Cleaner Plant	==	19,205	1 1	1.1	1.1	19,205 (h)	1 1	1 1	1 1	126	36	1 1	1.1
Total for Co.		19,205	1	1	1	19,205	1	1	1		143	1	
Kadelock & Co.	=	1	3,085	ı	1	3,085 (1)	1	500	1,900	270	7	1	1
Mine	t	1	3,545	1	1	3,545 (e)	1	929	7,450	216	10	1	1
Coxe Stripping	E	009	1	1	1	(1)	1		1	33	9	1	1
Mt. Hazel (B)	£	148,883	18,722	1	200	167,805 (p)k)	-	,	1	264	7	1	1
Mine	Ė	2,893	1,254	21	1	4,168 (d)	1	1,250	5,150	306	10	1	1
Banks Co.	ŧ	192,767	1,2,666	1	1	139,433 (d)	1	ı	1	190	17	1	1
Wine Mine	=	1	4,242		1	4,242 (1)	1	200	2,150	290	١٨	1	1
Morea Mining Co. Breaker (B)	=	13,741	872	248	,	14,861 (u)	1	1	1	100	55	1	1
Morea Stripping	= =	31,337	1,989	265 265	, yo	34,391	1 1	38,000	7,000	202 208	36	1 1	1 1
Total for Co.	1 1	76,569	4,859	1,382	500	83,310	1	1,3,000	1,000		118	,	
Jeff Noakes P. & R. Stripping		972.7	1,698	58	1	6,502 (1)	1	1	1,200	62	£1,	1	1

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TH PTS	244
TH DIS	242
TH NTS	242
TTH PTS	242
TYTH DIS	242
TYTH DIS	244
STA HTTE	244
STA HTY	244
STT HTTTE	242
STA HTYTE	244
STA HTYTE	244
STU HTTS-7	242
P-STTH DIS	242
Y-STYTH DIS	244
STU HTYTS-Y'	242
TY-STYTH DIS	242
PLY STYTH DIS	244
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												N	Non-fatal
			Product	Production - net tons	tons				Founds			ř	accidents
		: Shipped to market	o market :	Sold	Used at	•• ••	Pounds	Pounds	permiss- ible ex-		E4	Fatal a	dis- ability
Operators & collieries County	ounty	By By railroad	By :	local	for steam and heat	Total :	powder	dynamite	plosives	Days	Empl- a	acci-	60 days
N. Mahanoy Coal Co.	1	100 6				1 821 (-)			0.77	375			-
Peca Coal Co.	ocuant.	1,004	1	1	1	(m) hco*/	1	ı	4,050	100	77	ı	4
Primrose Mine	E	72,493	5,846	3,298	1,416	83,053 (n)	1	1,075	65,500	180	168	ı	1
Poenix Contracting Co. P. & R. Banks	E	273,224	1	1	1	273,224 (0)	1	1	1	178	7	1	1
Philadelphia & Reading													
Knickerbocker Mine	E	238,818	,	1	16,984	255,802 (j)	1	96,550	203,875	174	730	٦	12
" Stripping	= =	173,040	1	ı	1 .	173,040 (4)	ı	123,200	1 7	224	977	1	1 =
Mananoy City Tine N. Mahanoy Bank	: #	513	1 1	1 1	+23+234 -	513 (3)	1 1	110,962	74,000	58	7,7		∄ '
Total for Co.		576,383			30,123	905,509	,	560,675	297,875		14241	1	56
Rhoads Contracting Co.	E		1	١		1	١	,	,	18),	1,3	,	-
ose Stri		4,825	655	338	851	6,669 (r)	1	1	1	19	28	1	1
Total for Co.		4,825	655	338	851	699,9	1	1	1		17	1	1
Rymar & Co.								4	1	2,0	,		
Wine Co.	E	ı	3,779	1	1	3,779 (g)	ı	20	2,500	560	7	1	-
Mine Mine		2,587	1,122	19	1	3,728 (d)	1	350	7,000	284	6	1	1
Sincavage & Co.	E		1.1.65	,		1.1.65 (9)	1	S.	650	118	v	,	1
Coal Co.			2			100							
Breaker (B) Skytop Mine		13,438	6,231	1 1	۱ در	13,438 (u) 6,281	1 1	1 1	9,000	122	(27	t i	1 1
Total for Co.		13,438	6,231	1	50	19,719	1	1	9,000		1,7	1	1
Valsuk & Co.	E	3,989	1,730	29	1	5,748 (d)	1	1	2,450	190	10	1	1
Masaika Bros. Breaker (B)	z	1	8,206	1	1	8,206 (s)	1	1	1	596	ν.	1	1
Breaker (B)	E	,	6,140	1	1	6,140 (s)	1	1	1	115	9	1	1
Messner Coal Co. Breaker (B)	E	,	6,145	,	1	6,145 (s)	1	1	,	81	72	-	1
Grand total		1,538,657	172,418	12,559	37,571	1,761,205	1	1,056,827 472,450	472,450		2573	1	33

Non-fatal	dis-	ability	60 days	or more	
		Fatal	acci-	dents	
			Empl- acci-	oyes	
			Days	worked	
Pounds	permiss-	ible ex-	plosives	nseq	
		Pounds	dynamite	nsed	
	Pounds	black	pwoder	nsed	
TNOE		••	Total :	production :	
reduction - net tons	Used at	colliery	for steam	and heat	
reduction - net tons	Sold	to	local	trade	
Producti			By:	truck :	
		Shipped to	By By		
				County	
				ors & collieries	
				ore	

Breaker

(20th) Coal prepared at Skytop breaker Gilberton "

G G

71,162 tons prepared at Gilberton breaker (20th), and 5,568 tons at St. Nicholas breaker (20th) Atkins म् अस्त

Coal prepared at Hillside breaker (19th), and Atkins breaker Otto

of Branchdale Coal Co., (27th) (19th) E Hillside

\(\sigma\)/7/14 tons re-prepared at Calberton, and 6,917 tons at Millersville breaker of Pine Ridge Mining Co. (22nd) 1,916 r prepared at Norse breaker, and \(\begin{array}{c} \)/15/2 for prepared at Norse breaker, and \(\beta\)/15/2 forms at Calberton (20nd) prepared at St. Micholas (20nd) (20th) St. Nicholas "

Coal prepared at St. Nicholas 955550 9555

62,228 tons prepared at Spring Mountain breaker (16th), and 20,825 tons at Hazleton Shaft breaker (18th) Coal prepared at Oakland breaker of Otto Collieries Co. (22nd) Bank coal

163,128 tons prepared at St. Micholas breaker, and 9,912 tons at Oakland breaker , 132 tons prepared at Hazleton Shaft breaker, and 237 tons at Spring Mountain breaker 2 G L

Discontinued operation in May Preparation only. Mine coal

Mine coal, purchased Partial preparation

tons 149,063 720,607 1 Deep mined coal Stripping Bank

Operators in district 38 Operators in di 17 Operations " 25 Mines "

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Harold Shomper, Inspector		Produ	TWENTI-SEVENT Production - net tons	WENTI-SEVENTH DISTRICT 1 - net tons	ISTRICT			Pounds			2 00	Non-fatal accidents
		**	Sold	Used at		Pounds		permiss-			'	dis-
	Shipped to	mar	ر د د	colliery		black	Pounds	ible ex-			Fatal	ability
Operators & collieries County	: by : railroad	by :	trade	and heat	Total : production :	powder	dynamite	plosives	Worked	oyes dents	acc1-	or more
Schuyl.	6,458	905	917	24	8,30h (a)	1	2,500	18,600	243	п	- 1	,
	ı	210	1	ı	210 (b)	1	ı	200	16	70	1	١
	ı	3,438	1	50	3,488 (k)	1	595	2,355	213	9	1	1
	18,685	2,860	591	다 당	22,187 (u) 61,118	1 1	007, 14	1.1	117	125	1.1	۲.
1 1	70,148	10,737	2,219	201	83,305	-	11,400	-		142	1	1
	101,030	3,560	514	3,667	108,771 (u)	١	80,475	19,375	191	348	١	lat
	38,496	1,353	159	1,345	33.610	1 1	2.500	1 1	183	3 2	1 1	1 1
	38,800	1,370	198	1,432	1,800 800,800	1	200	5,300	是	185	1	1
1	237,304	8,362	1.207	8,603	255,176		83,175	24,675	-	1,62		-7
1	1	2,392			2,392 (c)	ı		2,500	227	7	'	
	1	2,003	1	ı	2,003 (c)	١	ı	6,050	35	æ	1	1
	2,910	9,821		п	12,742 (d)	1	1,575	6,075	281	19	1	١
	7,010	8,880	836	1	16.726 (0)	1	л. 200	16,300	277	50	ı	1
	4,473	2,574	금	1	7,188 (•)	1	1,150	3,500	57	15	1	1
1 1	11,483	11,454	977	1	23,914 (e)	1	8,350	19,800		35	1	1
	,	4,307	ı	ı	4,307 (f)	1	1	1,,400	213	70	- 1	1
	163	16	2	16	(B) 16¶	1	1	200	21	2	- 1	1
	1,950	2,850	01	17	4,857 (k)	1	ı	5,200	208	10	1	1
	1	ı	1	1	- (1)	ı	1	007,4	210	9	ı	1
	1,684	3,594	크	- 80	5,399 (1)	ı	2,350	1,750	283	7	1	1

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Non-fatal	accidents	dis-	60 days	1	1	٦ ١	1	त ।	1	1	1	1	1	1	1	1	1	Т	1	1	1
N	B	- La+a2		1	1	1 1	1	٦.	1	7	ı	1	1	4	ı	1	1	1	1	1	1
		ja:	Empl-acci-	0	13	17	25	3.38	134	110	9	70	9	У.	25	72	7	13	28	19	œ
			Days	264	168	140		199		163	16	77	7777	77	167	506	112	301	134	238	290
	Pounds	permiss-	plosives	9,000		720	9,120	16,850	16,850	39,175	150	1	2,250	1,750	1	3,750	009	2,900	6,300	30,000	1,850
		Pounds	dynamite	ı	8,400	1 1	1	70,000	70,000	1	1	370		1	1	1	1	500	1	1	00069
		Pounds		1	1	1 1	1	1.1	1	1	ı	1	ı	1	1	1	1	ı	1	ı	1
, CONTINUED			Total : p	6,560 (k)	10,209 (1)	948	6,639 (g)	64,387 (y) 18,639 (y)	83,026	58,245 (*) u)	250 (m)	1,150 (n)	1,055 (0)	1,649 (n)	(x) -	1,375 (f)	1,182 (p)	7,907 (u)	33,624 (n)	15,010 (c)	(b) 505 , 6
FWENTY-SEVENTH DISTRICT, CONTINUED	tons	Used at	for steam and heat	,	6	32	215	404 118	522	367	2	7	1	10	1	1	1	ı	223	10	
NTY-SEVEN	Production - net tons	Sold	local	1	55	27	32	15,545	20,044	2,107	1	~	1	21	1	1	18	017	736		326
TWE	Produc	market.	By :	095,9	6,835	31	218	1.1	-	6,290	64	197	919	198	ı	1,375	828	6,937	040,4	15,000	3,449
		Shinned to market	By railroad	1	3,310	880	6,174	14,022	62,460	187,64	199	943	135	1,420	1	,	336	560	28,925		2,730
		۱	s County:	Co. Schuyl.	E	r r	°°°		8	=	E	ane	=	Tonser	£	E	ŧ		E	E	ŧ
			: : By By Operators & collieries County : railroad	Hatter, Ernest, Coal Co.	Wine	Holohan Coal Co. #1 Mine (#3)	Total for Co.	Indian Head Coal Co. Colket Mine Stripping	Total for Co.	Joliett Coal Co. Joliett (B)	Mine (#4)	Mine (#5)	Mine (#6)	Mine (#7)	Lamar Coal Co., inc.	Mine	Mine (#8)	Malho (B)	Stripping	Mine hill coal co.	Wine Wine

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			Product	TWENTY-SEVENTH I	FOR DISTRIC	INENTY-SEVENTH DISTRICT, CONTINUED			Pounds				Non-fatal
		: Shipped to market	o market	Sold	Used at		Pounds	Pounds	permiss-			Fatal	dis-
Operators & collieries County		By railroad	By truck	: local	for steam and heat	Total : production :	powder	dynamite	plosives	Days	Empl-		60 days
Orchard Coal Co.													
Mine	Schuyl.	3,740	2,091		19	5,850 (1)	1	1	3,000	275	12	1	1
и., в			1		1						į		
Kemble (B)		1	21,045	2,163	765	23,973 (u)	1	3,400	19,000	186	54	1	ı
Ferrag Coal Co.		2 20 7	110 01	יםר		(") 000 66		1.00	1. 1775	200	10		
Pernick Frank, Ir.		5,013	11,6,11	T02	ı	(n) 606°22	1	1490	4,515	573	34	1	ı
Mine		298	376	37		708 (q)	1	1	200	51	7	1	1
Rizzerdi Coal Co., Inc.	1	1	1							1			
Wine Conj Co		7,652	7,530		18	15,200 (m)f)	-	1	10,400	235	23	1	-
Mine (#9)		1,385	162	143	10	1,600 (r)	1	•	2,425	112	9	1	1
Sabadish & Cherrybon													
Mine (#10)		344	18	1	2	430 (m)	1	1	700	38	70	1	1
Saunders Coal Mng. Co.		,			١	(2) 000			000	{	(
School P. Todden		1,190	T, 709	1	Λ	5,990 (I)	ı	ı	3,000	151	7	ı	
Stripping		η, 660	652	20	1,8	5,430 (n)	1	ı	1,200	77	6	١	1
Schneck Coal Co.								1		1			
Wine		ı	1	19,378	50	19,398 (s)	1	2,500	8,775	185	37	1	1
Stripping		294	7	77	3	342 (n)	1	700	1	59	9	1	١
Stiely, Wellington	•	1			3			1					
Stutzman, Chas. & Co.		2,400	6	70	. 45	0,350 (n)	1	555		707	7	1	
Wine	E	th09	11/18	1	20	757 (m)	ı'.	1	2,600	26	w	1	1
Troup, Warren Bank		1	2,350	١	,	2,350 (t)	ı	ı	ı	119	7	1	١
Valent, Anthony													
Stripping		1,550	216	23	п	1,800 (v)	1	1	1	51	w	1	1
Stripping Stripping	z	1	540	1	1	540 (k)	1	1	1	7	7	١	1
Walaitis Coal Co.		1	3,660	1	1	3,660 (f)	1	1,350	2,450	287	70	1	1
Wine		1,442	168	145	12	1,667 (r)	1	ı	750	110	70	1	1
Whiteash & Dalsas		3 008	352	, lo	33	3 1.85 (2) 1)	1	-	6 250	197	7		•
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Non-fatal accidents accidents dis- dis- Days Empl-act-60 days worked oyes dents or more	35 9	1404 2 10	s) Coal prepared at Thos. Schneck breaker (25th) t) where a Jonathan " (22nd) 1) Mine coal The pared at Westwood (25th) and Malho (27th) 1) School prepared at Westwood, and 5,953 tons at X) Preparation only X) Preparation only X) Preparation only 1) Operated as a small mine after January 1) Operated as a small mine after January 1) Operated as a small mine after September 1) Discontinued operation in May 1) Discontinued operation in May 1) Discontinued operation in May 1) Mill mine after September 1) Mill mine mine after September 1) Mill mine mine mine May 1) min mine mine May 1) min mine mine May 1) min mine mine May 1) Mill Mill Mill Mill Operation, then operated as a small mine after February
Pounds permiss-Pounds ible ex-dynamite plosives used used	- 1400	233,880 288,925	s) Goal prepared at Thos. Schneck breaker (25th) "" 10 10 10 10 10 10 "N School prepared at Westwood (55th) and Malho (17 10 10 10 "N School prepared at Westwood, and 5,953 "N Preparation only middle Head (21st) "Preparation only middle Head (21st) "Prepared at Indian Head (21st) "The prepared at Indian Head (21st) "Discontinue operation in Tebruary later of his prepared as a small mine after Jennary "E) Discontinued operation in May "A) "Discontinued operation in May "A) "Sold operated as small mine after September "A) "The "" " " " " " " " " " " " " " " " " "
: Pounds: Diack: Total: powder	800 (k) -	- 61,519	
uction - net tons Sold Used at to colliery local for steam trade and heat	1 008	525,719 173,462 50,976 11,362	Indian Head breaker (21st) and Lamar breaker (27th) Indian Rum (19th) " (19th) " " (21th) Jancott " (21th) " " " (21th) Indian Rum & File Ridge (19th), Live Cak & Phoemix (21st), Indian Rum & File Ridge (19th), Live Cak & Phoemix (21st), Jarious breakers Carbotte, 27th) Indian Rum (27th) and Lamar (27th) Indian Rum (19th), Phoemix (21st), and Lamar (27th) Indian Rum (19th), Phoemix (21st), and Lamar " " Indian Rum (19th), Phoemix (25th) and Lamar " " Indian Rum (19th), Phoemix (25th) and Lamar " " Indian Theesker of Stevens Coal Co. (25th) Indian Theesker " (25th) and Lamar " (25th) Indian Theesker " (25th) and Lamar " (25th) Indian Rum (19th), Phoemix " (21st) Indian Rum (19th)
Prod. Shipped to market By By By Operators & collieries County : railroad truck	Schuyl.	Grand total 525,719	(B) Breaker (2014) and Lamar breaker (27th) (b) (c) " Indian Run " (19th) " " (19th) " " Indian Run " (19th) " " " (19th) " " Indian Run " (19th) " " " (19
Operators & co	Woznicki & Berger Mine (#11	Ę,	(a) By the state of the state o

477,433 tons 190,712 " 93,374 "

Deep mined coal Stripping " Bank "

50 Operators in district 58 Operations " 43 Mines "

⁶²

	Production - net tons	-		Pounds				accidents
		: Pounds		permiss-				
b		: black	Pounds	ible ex-			Fatal	
E .	Total	: powder	dynamite	plosives	Days	Mpl-	acci-	
at	production	pesn :	pesn	pesn	worked	oyes	dents	- 1
.,059,282	14,710,118	1,386,298	30,575,121	16,804,825	207	79,209	35	

(Irreducible minimum .16)
16,362,473 485,980 80 6,997
Man-days for region Paralities per fatal for region Paralities per million man-hours for region Non-fatal accidents for region

Deep mined coal - 28,805,887 tons Stripping " - 11,081,087 " Bannk " - 14,823,114 "				
		28,805,887 tons	" 780,180,11	h,823,144 "
Deep mined coal Stripping " Bank "	,	,	1	1
		Deep mined coal	Stripping "	Bank "

Compiled, typed: Ber

Operators Producing 10,000 or More Tons, In Order of Their Production

Operator	Production	Operator P	roduction
Glen Alden Coal Co.	5,870,609	Beadle & Rick	100,116
Philadelphia & Reading	,,,,,,,,,	Pine Ridge Mining Co.	93.118
Coal & Iron Co.	5,292,808	Adelphi Coal Mining Co.	91,963
Lehigh Navigation Coal Co.	3,424,382	Adelphi Coal Mining Co. Duryea Anthracite Co.	89,534
Hudson Coal Co.	3,366,391 2,296,908	Lackawanna Mining &	.,
Lehigh Valley Coal Co.	2,296,908	Construction Co.	86,298
Susquehanna Collieries Div.		Morea Mining Co.	83 370
M. A. Hanna Co.	1,984,552	Branchdale Coal Co.	83,305
Stevens Coal Co.	*1,779,900		
Moffat Coal Co.	1,503,859	T. & T. Construction Co. Pioneer Construction Co.	81,635
Jeddo-Highland Coal Co.	798,371	Pioneer Construction Co.	80,084
Locust Coal Co.	605,894	Capone Coal Co. Jos. Banks Construc. Co. Gasparini Stripping Co. Live Oak Coal Co.	79,957
Pennsylvania Coal Co.	595,085	Jos. Banks Construc. Co.	79,819
Kehoe-Berge Coal Co.	571,597 546,963	Gasparini Stripping Co.	79,550
St. Clair Coal Co. Number Nine Coal Co.	474,684	Sussex Coal Co.	79,540
Raven Run Coal Co.	460,675	Sussex Coal Co. Timothy Burke, Inc. J. E. Schumacher & Son Bagle Hill Coal Co. Luzerne County Gas & Fler.	77,637 76,1407
Hammond Coal Co.	224 102	J E Schumacher & Son	75 817
Knox Coal Co.	355,303 338,891	Fagle Hill Coal Co.	75.816
Jermyn-Green Coal Co.	338,891	Luzerne County Gas & Elec.	74,012
Repplier Coal Co.	308,489	Greenwood Mining Co.	73,601
Haddock Mining Co.	297,066	Cranberry Mining Co.	70,908
Huss Contracting Co.	291,530	Village Slope Coal Co.	68,600
Hazle Brook Coal Co.	287,978	Village Slope Coal Co. Rhoads Contracting Co. Valley View Coal Co.	68,058
Phoenix Contracting Co.	273,224	Valley View Coal Co.	67,708
Mountain Top Coal Co.	270,936	Atkins Coal Co.	07.457
Northwest Coal Co.	263,608 255,476 242,990	Russell Coal Co. Hoover Coal Mining Co.	67,019
Buck Run Colliery Co.	255,476	HOOVEL COAL WINING CO.	65,152
Payne Coal Co.	242,990	Maltby Coal Co.	65,077
Phoenix Coal Co.	238,562	Trader Horn Coal Co.	63,897
Harry E. Coal Co.	235,236 234,882 205,241	CONTON COAL CO.	(0,010
Indian Head Coal Co. Natalie Coal Corp.	205 207	Sandy Run Miners & Prod's. Perry Construction Co. Alden Coal Co. Fisher Coal Co. Joliett Coal Co. Kingston Mining Corp. Turnpike Coal Co. J. B. Keiser & Son Gillizzi Coal Co. Rosini Bros. D. & Z. Coal Co. Control Co.	60 787
	191,319	Alder Coal Co	E8 700
DeAngelis Coal Co. Centralia Mining Co.	190,606	Figher Cool Co	ER 266
T-1111 0 7 7	794.422	Joliett Coal Co.	58.21.5
Jonathan Coal Mining Co.	186,633 180,830	Kingston Wining Corn.	57.936
Anthracite Enterprises, Inc.		Turnpike Coal Co.	55,272
Steam Coals, Inc.	170,544	J. B. Keiser & Son	54.818
John Booth, Inc.	168,586	Gillizzi Coal Co.	53,993
Locust Valley Coal Co.	167,805	Rosini Bros.	52,942
Gateway Coal Co.	167,1,57	D. & Z. Coal Co.	52,835
Alpec Coal Co.	166,1,22	Courtdale Coal Co.	52,470
Mammoth Coal Co.	155,138	Courtdale Coal Co. Nanticoke Excavating Co. Broad Mountain Fuel Corp.	51,246
Hydrotated Anth. Fuel Co.	154,021	Broad Mountain Fuel Corp.	50,150
Markson Coal Co.	152,908	Chas. L. Reilly	49,669
T. F. Steele Coal Co.	151,1,30	Williams Stripping Co.	47,267
Reading Briquet Co.	150,788	Coal Rain Coal Co.	46,597
Colitz Coal Co.	149,458	Seluzer Coar Co.	45,200
Bellevue Coal Co.	146,709 142,255	Tolerico Stripping Co. Diminick Coal Sales Co. Franklin Coal Mining Co.	44,142
M. & S. Coal Co. Maksymik & Co.	139,433	Franklin Coal Mining Co	42,439 41,753
Cullen Coal Co.	136,839	Sarf Coal Co.	41,447
Carbonizing Coal Co.	135,223	Gowen Coal Co.	40,922
Morris Ridge Coal Co.	131,489	Penna Coal Co	40,170
Gilberton Coal Co.	118,615	Motley Coal Co.	39,786
Heidelberg Coal Co.	116,424		39,168
Plains-Hilldale Coal Co.	115,973	West Exeter Coal Co.	38,671
Pompey Coal Co.	115,660	Pringle Coal Co.	38,034
Swatara Coal Co.	111,704	Dial Rock Coal Co.	37,362
Rhonda Coal Co.	110,185		37,000
Nay Aug Coal Co.	107,462	Lower Region Coal Co.	36,700
Kohinoor Coal Co.	102,008	Lower Region Coal Co. Hinchey & McCinley	36,638
Capparell Contracting Co.	100,861	Waddell Coal Co.	36,096

Operators Producing 10,000 or More Tons, In Order of Their Production 1949

West Slope Coal Corp. 31,694 Meadowside Coal Co. 11,73 Jonathan Coal Co. 33,662 Butter Tub Coal Co. 11,32 GClarrick Bros. 33,621 Sanchez Construction Co. 11,32 GClarrick Louis 32,820 Silverton Coal Co. 11,40 Foieri & Louis 32,820 Silverton Coal Co. 11,60 Foieri & Louis 32,820 Silverton Coal Co. 11,70 Foieri & Louis 32,820 Silverton Coal Co. 11,70 Floneer City Coal Co. 31,837 Altamont Coal Co. 13,71 Floneer City Coal Co. 30,731 Dwonczyk Coal Co. 13,50 Logan Creek Constructn.Co. 29,818 Hamilton Construction Co. 13,12 Blard Mining Co. 29,521 Zimmerman Coal Co. 13,12 Blard Mining Co. 28,162 M. & W. Coal Co. 13,10 Farley & Laychack 27,910 Reuben Hentz 2 12,55 Farley & Laychack 27,550 Reuben Hentz 2 12,55 Farley & Laychack 27,550 Reuben Hentz 2 12,55 Fansitat Coal Co. 27,757 C. Q. & W. Coal Co. 12,51 Floskonka Coal Co. 26,855 B. & W. Coal Co. 12,51 Florine Coal Co. 26,055 Renninger Coal Co. 12,52 Florine Coal Co. 25,302 Mascelli Coal Co. 12,50 Florine Coal Co. 21,605 Renninger Coal Co. 11,65 Florine Coal Co. 21,605 Rendinger Coal Co. 11,65 Florine Coal Co. 21,605 Rever Valley Coal Co. 11,65 Florine Coal Co. 21,605 Rever Valley Coal Co. 11,65 Florine Coal Co. 21,605 Rever Valley Coal Co. 11,65 Florine Coal Co. 21,605 Rever Valley Coal Co. 11,65 Florine Coal Co. 21,605 Rever Valley Coal Co. 11,65 Florine Coal Co. 21,605 Rever Valley Coal Co. 11,65 Florine Coal Co. 21,605 Rever Valley Coal Co. 11,65 Florine Coal Co. 21,605 Rever Valley Coal Co. 11,65 Florine Coal Co. 21,605 Rever Valley Coal Co. 11,65 Florine Coal Co. 21,605 Rever Valley Coal Co. 11,65 Florine Coal Co. 21,607 Randon Coal & Contracting Co. 11,65 Florine Coal Co. 21,607 Randon Coal Co. 11,65 Florine Coal Co. 21,60	Operator I	Production	 Operator Gravine Coal Co.	Production
Search Coal Corp. 31,691	Salam Hill Coal Co	35.282	Gravine Coal Co.	11, 66
Jonathan Coal Co. 33,662 Sanches Construction Co. 14,23	West Slene Coal Com	31, 601,	Mandaweide Coal Co	11, 579
Sanches Construction Co. 11,25	Tenathan Cool Co	33 662	Butter Tub Coal Co	11, 320
Sample College Silverton College Silvert	MaCarrials Proc	33 621	Sanahar Construction Co	11, 22
## String Coal Co. 13,55 Swift Coal Co. 31,387 F. & J. Coal Co. 31,387 F. & J. Coal Co. 31,387 Floneer City Coal Co. 30,385 Simpson Coal Co. 30,385 Logan Creek Construct Co. Rawen Coal & Supply Co. Shaven Coal & Supply Co. Shift Mining Co. 25,760 Brd Mining Co. 25,764 Brd Mining Co. 27,760 Brd Mining Co. 27,750 Winton Coal Co. 27,750 Winton Coal Co. 27,500 Floneer City Coal Co. 27,500 Floreer Coal Co. 27,500	Medarrick Bros.	22 255	Sanchez Construction Co.	21. 02
Solet & Louis	Willen Coal Co.	20,422	Genelow Coal Co.	14,024
Switt Coal Co. 31,397	roieri & Louis	32,020	Silverton Coal Co.	13,050
P. & J. Coal Co. 30,731 3,307 Stauffer Coal Co. 13,67 13	Swift Coal Co.	31,937	Altamont Coal Co.	13,74
Pioneer City Coal Co. 30,731	P. & J. Coal Co.	31,887	Stauffer Coal Co.	13,700
Simpson Coal Co. 29,848 Hawlton Constructin.Co. 29,848 Haven Coal & Supply Co. 29,760 Monthor Co., Inc. 29,524 Dancott Coal Co. 28,764 High Test Coal Co. 13,12 Barcott Coal Co. 28,764 High Test Coal Co. 13,12 K. & Coal Co. 13,10 Farley & Laychack 27,940 Examinate Coal Co. 27,757 L. K. Coal Co. 27,500 Winton Coal Co. 27,760 Winton Coal C	Pioneer City Coal Co.	30,731	Dwonczyk Coal Co.	13,67
Logan Creek Constructn.Co. 29,848 Hamilton Construction Co. 13,502 Monttor Co., Inc. 29,760 Monttor Co., Inc. 28,764 Bird Wining Co. 28,162 Bird Wining Co. 28,162 Bird Wining Co. 28,162 L. K. Coal Co. 27,757 L. K. Coal Co. 27,757 L. K. Coal Co. 27,757 Vispl Coal Co. 12,605 Hinton Coal Co. 17,600 Vispl Coal Co. 12,605 Hard Kanada Coal Co. 12,605 Hard Coal Co. 12,605 Hard Coal Co. 12,605 Hard Coal Co. 12,605 Monttor Coal Co. 12,605 Hard Coal Co. 11,659 Hard Coal Co. 12,605 Hard Coal Co. 12	Simpson Coal Co.	30,085	A. & F. Coal Co.	13,54
Haven Coal & Supply Co. 29,760	Logan Creek Construc'n.Co	29,848	Hamilton Construction Co.	13,50
Monttor Co., Inc. 29,52h Zimmerman Coal Co. 13,30 Bancott Coal Co. 28,76b High Test Coal Co. 13,12 Bird Mining Co. 28, h82 M. & M. Coal Co. 13,02 Farley & Laychack 27,940 Reuben Hentz 12,95 L. K. Coal Co. 27,757 C. Q. & W. Coal Co. 12,86 Minton Coal Co. 27,152 Herb & Reed 12,63 Stanley Coal Co., Inc. 26,895 B. & W. Coal Co. 12,58 Hosk Coal Co. 26,05h Renninger Coal Co. 12,55 Hosk Coal Co. 26,05h Renninger Coal Co. 12,58 Florine Coal Co. 25,516 Gender Coal Co. 25,502 Marchael Coal Co. 21,655 Mest Side Coal Co. 21,655 Mest Side Coal Co. 21,639 Marchael Coal Co. 21,639 Marlin Coal Co. 21,639 Marlin Leman 10,88 Little & Sheoora 23,973 Marlin Leman 10,88 Little & Sheoora 23,727 Klimas Fros. 10,78 Bermice White & Sheora 23,387 K. & D. Coal Co. 23,387 Schuster Coal Co. 23,387 Schuster Coal Co. 23,387 Schuster Coal Co. 24,605 Mest Goal Co. 23,211 Hepter & Ctto 10,20 Sproul Construction Co. 10,13 Mining Co. 10,13 Mining Co. 22,000 Spring Contracting Co. 10,20 Mining Co. 22,000 Sproul Construction Co. 10,20 Sproul Construction Co. 10,13 Mining Co. 22,000 Sproul Construction Co. 10,13 Mining Co. 22,000 Sproul Construction Co. 10,13 Mining Coal Co. 11,763 Francis Deaven Coal Co. 11,763 Francis Deaven Coal Co. 12,763 Francis Coal Co. 13,719 Sunshine Coal Co. 18,800 Lobb Coal Co. 18,802 Mining Coal Co. 18,608 Mining Coal Co. 18,609 Mining Coal Co. 17,609 Mining Coal Co. 17,600 Mining Coal Co. 17,609 Minin	Haven Coal & Supply Co.	29,760	Larksville Coal Co.	13,42
Dancott Coal Co. 28,764	Monitor Co., Inc.	29.524	Zimmerman Coal Co.	13.30
### Bird Mining Co. 28, b82 ##. & M. Coal Co. 13,00 ### Reuben Hentz 12,95 ### Laychack 27,900 ### Reuben Hentz 12,95 ## Coal Co. 27,577 ### Coal Co. 12,68 ### Coal Co. 12,68 ### Coal Co. 12,68 ### Coal Co. 12,68 ### Coal Co. 12,58 ### Coal Co. 11,65 ### Coal Co. 21,645 ### Coal Co. 21,645 ### Coal Co. 21,645 ### Coal Co. 11,65 ### Coal Co. 21,645 ### Coal Co. 21,645 ### Coal Co. 11,60 ### Coal Co. 21,645 ### Coal Co. 23,585 ### Coal Co. 23,585 ### Coal Co. 23,585 ### Coal Co. 21,645 ### Coal Co. 22,900 ### Coal Co. 21,763 ### Coal Co. 22,700 ### Coal Co. 21,763 ### Coal Co. 21,765 ### Coal Co. 21,765	Dancott Coal Co.	28.764	High Test Coal Co.	13.12
Farley & Laychack L. K. Coal Co. L. K. Coal Co. 27,577 C. C. & W. Coal Co. 12,581 Minton Coal Co. 27,560 27,152 Herb & Reed 12,63 Stanley Coal Co. 12,68 Stanley Coal Co. 12,69 Stanley Coal Co. 24,605 Stanley Coal Co. 25,302 Mascelli Coal Co. 11,63 Stanley Coal Co. 21,639 Starley Coal Co. 23,973 Marlin Leman 10,88 Jos. P. Dando, Sr. 23,971 Starley Coal Co. 23,973 Starley Coal Co. 24,695 Sernice White Ash C.Co. 23,695 Sernice White Ash C.Co. 23,585 Starley Coal Co. 23,211 Starley Coal Co. 23,211 Starley Coal Co. 23,211 Starley Coal Co. 24,605 Syder Coal Co. 22,909 Sproul Construction Co. 10,13 Starley Inc. 20,000 Syder Coal Co. 21,763 Francis Deaven 21,763 Francis Deaven 22,750 Indian Run Coal Co. 21,763 Starley Coal Co. 21,763 Starl	Bird Mining Co.	28.482	M. & M. Coal Co.	13.0h
L. K. Coal Co. 27,757 Winton Coal Co. 27,600 Vispi Coal Co. 12,81 Pansitat Coal Co. 27,152 Herb & Reed 12,63 Stanley Coal Co., Inc. 26,895 B. & W. Coal Co. 12,52 Hoskonka Coal Co. 26,054 Remninger Coal Co. 12,58 Norvidas & Palko 25,731 Darkwater Coal Co. 12,58 Florine Coal Co. 25,302 Coak Coal Yard 25,250 Keyser Valley Coal Co. 11,63 Beaver Brook Coal Co. 21,615 Beaver Brook Coal Co. 21,605 Beskerille Coal Co. 21,605 Beskerille Coal Co. 21,605 Beskerille Coal Co. 21,000 C. W. Otto & Son 23,973 Das. P. Dando, Sr. 23,911 Lawrence Shade Little & Shecora 23,727 Klimas Bros. 10,58 Bermice White Ash C.Co. 23,585 Columbia Coal Co. 23,987 Schuster Coal Co. 10,15 Bermice White Ash C.Co. 23,211 Hepler & Ctto Coal Co. 10,15 Reidinger Coal Service 22,861 McHale & Santor 22,750 Indian Run Coal Co. 21,763 Francis Deaven 21,159 Gaylord Coal Co. 19,378 Jones Coal Co. 19,726 Exide & Joe Coal Co. 19,378 Sobleskie Coal Co. 19,577 Schneck Coal Co. 18,008 Jones Coal Co. 19,780 Jones Coal Co. 18,008 Caravity Coal Co. 18,008 Caravity Coal Co. 18,008 Little Coal Co. 17,609 Canforcoro Coal Co. 15,507 Canforcoro Coal Co. 15,507 Mne Hill Coal Co. 15,007 Mne Rill Coal Co. 15,007	Farley & Laychack	27.910	Reuben Hentz	12.95
## Winton Coal Co. 27,600	I. K Coal Co	27 757	CO Feel W 4 O 2	12 81
### Annoted Cod. 1, 152	Winter Cool Co	27 600	Want Cool Co	12,64
Farnita toal Co., Inc. 26,895 Stanley Coal Co., Inc. 26,895 Floskonka Coal Co. 26,054 Norvidas & Palko 25,731 Ploskonka Coal Co. 25,302 Manaqua Coal Pockets 25,546 Florine Coal Co. 25,302 Mascelli Coal Co. 11,65 Oak Coal Yard 25,250 Eaver Brook Coal Co. 24,639 Beaver Brook Coal Co. 24,639 Beckville Coal Co. 23,973 Marlin Leman 10,88 Jos. P. Dando, Sr. 23,914 Lawrence Shade 10,87 Little & Shecora 23,727 Klimas Bros. 10,58 Bernice White Ash C.Co. 23,585 Bernice White Ash C.Co. 23,387 Schuster Coal Co. 10,40 K. & D. Coal Co. 23,241 Bernice White Ash C.Co. 23,241 Bernice White Coal Co. 22,909 Reidinger Coal Service 22,861 McHale & Santor 22,750 Indian Run Coal Co. 21,763 Francis Deaven 21,763 Francis Deaven 21,763 Francis Deaven 21,763 Jones Coal Co. 19,719 Sunshine Coal Co. 19,719 Sunshine Coal Co. 19,726 Skytop Coal Co. 18,130 Bosleskie Coal Co. 18,130 Bosleskie Coal Co. 18,288 Hillside Coal Co. 17,659 Clanforcoro Coal Co. 16,209 Elmer Wertz 15,057 Mne Hill Coal Co. 15,057	De etta Coal Co.	27,000	Vispi Coar Co.	12,04
Stanley Coal Co. 16.	ranzitta Coal Co.	21,152	herb & keed	12,03
Ploskonka Coal Co. 20,094 Renninger Coal Co. 12,11	Stanley Coal Co., Inc.	26,895	B. & W. Coal Co.	12,58
Norvidas & Palko 25,731	Ploskonka Coal Co.	26,054	Renninger Coal Co.	12,14
Tamaqua Coal Pockets 25,5% (Coodspring Contracting Co. 11,65 Thorine Coal Co. 25,302 Mascelli Coal Co. 21,65 Mascelli Coal Co. 21,65 Mest Side Coal Co. 21,639 Mest Side Coal Co. 21,639 Mest Side Coal Co. 21,639 Marlin Lehman Marlin Coal Co. 10,58 Dantas, Alfred Dantas Dant	Norvidas & Palko	25,731	Darkwater Coal Co.	12,00
Florine Coal Co. 25,302 Mascelli Coal Co. 11,65 Beaver Brook Coal Co. 24,645 Ace Coal Co. 21,659 Cuiduci Coal Co. 11,100 Beckville Coal Co. 24,659 Cuiduci Coal Co. 11,100 Beckville Coal Co. 24,605 Marlin Lehman 10,88 Co. 3,973 Marlin Lehman 10,88 Co. 3,973 Marlin Lehman 10,88 Co. 3,972 Columbia Coal Co. 10,705 Columbia Coal Co. 23,985 Throop Mining Co. 10,10 Event Coal Co. 23,985 Throop Mining Co. 10,10 Event Coal Co. 23,987 Schuster Coal Co. 10,26 K. & D. Coal Co. 23,987 Schuster Coal Co. 10,26 McHale & Santor 22,750 Indian McCoal Co. 22,799 Sproul Construction Co. 10,13 McHale & Santor 22,750 Indian McCoal Co. 21,780 Jonathan Coal Co. 21,780 Jonathan Coal Co. 21,763 Francis Deaven 21,159 Caylord Coal Co. 19,726 Stytop Coal Co. 19,726 Stytop Coal Co. 19,757 Schneck Coal Co. 19,398 Jones Coal Co. 19,398 Jones Coal Co. 19,398 Jones Coal Co. 19,398 Jones Coal Co. 18,000 Indian Run Coal Co. 19,398 Jones Coal Co. 18,000 Indian Coal Co. 19,719 Sunshine Coal Co. 18,000 Indian Coal Co. 19,398 Jones Coal Co. 18,000 Indian Coal Co. 18,000 Indian Coal Co. 17,610 Masters Coal Co. 17,610 Masters Coal Co. 17,659 Clanforcoro Coal Co. 17,659 Clanforcoro Coal Co. 17,659 Clanforcoro Coal Co. 17,650 Clanforcoro Coal Co. 17,650 Clanforcoro Coal Co. 15,000 Indian Coal C	Tamaqua Coal Pockets	25,546	Goodspring Contracting Co.	11,66
Oak Coal Yard 25,250 Keyser Valley Coal Co. 11,51 West Side Coal Co. 21,639 Acc Coal Co. 11,17 West Side Coal Co. 21,039 Cuiducci Coal Co. 11,01 Beekville Coal Co. 21,000 Harbon Coal & Contracting Co. 11,02 Jos. P. Dando, Sr. 23,973 Marlin Lefman 10,88 Jos. P. Dando, Sr. 23,914 Lawrence Shade 10,88 Little & Shecora 23,585 Throop Mining Co. 10,58 Bernice White Ash C.Co. 23,387 Throop Mining Co. 10,15 Columbia Coal Co. 23,211 Hepler & Ctto 10,20 Penag Coal Co. 22,909 Sproul Construction Co. 10,20 Reidinger Coal Service 22,861 Mellale & Santor 22,750 Indian Run Coal Co. 21,780 Jonathan Coal Co. 21,780 Jonathan Coal Co. 21,780 Jones Coal Co. 19,719 Sunshine Coal Co. 19,719 Sunshine Coal Co. 19,726 Skytop Coal Co. 19,719 Sunshine Coal Co. 19,131 Sobleskie Coal Co. 18,002 Helled Coal Co.	Florine Coal Co.	25,302	Mascelli Coal Co.	11,65
Beaver Brook Coal Co. 24,645	Oak Coal Yard	25,250	Keyser Valley Coal Co.	11.61
West 53de Coal Co. 21,639 Guiducci Coal Co. 11,01 Beekville Coal Co. 21,000 Harbon Coal & Contracting Co. 11,01 C. W. Otto & Son 23,973 Marlin Lehman 10,68 Jos. P. Dando, Sr. 23,911 Lawrence Shade 10,78 Little & Shecora 23,727 Klimas Fors. 10,58 Dewees Bros. 23,695 Dantas, Alfred 10,48 Bernice White Ash C.Co. 23,387 Schuster Coal Co. 10,45 Columbia Coal Co. 23,387 Schuster Coal Co. 10,26 Penag Coal Co. 22,909 Sproul Construction Co. 10,20 Reidinger Coal Service 22,909 Sproul Construction Co. 10,13 Mellale & Santor 22,750 Indian Run Coal Co. 20,000 Snyder Coal Co. 21,763 Sproul Construction Co. 10,13 Francis Deaven 21,159 Sproul Construction Co. 10,13 Sunshine Coal Co. 19,726 Skytop Coal Co. 19,726 Skytop Coal Co. 19,719 Sunshine Coal Co. 19,57<	Beaver Brook Coal Co.	24.645	Ace Coal Co.	11,17
Beckville Coal Co. 21,000	West Side Coal Co.	21, 639	Guiducci Coal Co	11 01
C. M. Otto & Son. 23,973 Jos. P. Dando, Sr. 23,911 Lawrence Shade 10,87 Lawrence Shade 10,58 Lawrence Shade 10,68 Lawrence Shade 10,58 Lawrence Shade 10,58 Lawrence Shad	Reckville Coal Co.	21,000	Harbon Coal & Contracting Co	11 02
Dos. P. Dando, Sr. 23,911	C W Otto & Son	23 073	Warlin Lohnan	10.88
Little & Shee ora 23,727 Lawrence shade 10,05	In D Danda Co	22 011.	Tamana Chada	10,00
Dittle & Sneedra 23,627 Nilmas bros. 10,05	Jos. F. Dando, Sr.	22,714	Lawrence Snade	10,07
Dewees Bross. Dewees Bross. Dewees Bross. Dewees Bross. Description of the Ash C.Co. 23,585 Dantas, Alfred 10,10 Throop Mining Co. 10,15 Schuster Coal Co. 10,26 Schuster Coal Co. 10,20 Penag Coal Co. 22,909 Sproul Construction Co. 10,13 MoHale & Santor 22,750 Indian Run Coal Co. 21,780 Jonathan Coal Co. 21,780 Jonathan Coal Co. 21,780 Jonathan Coal Co. 21,159 Caylord Coal Co. Eddic & Joe Coal Co. 19,726 Skytop Coal Co. 19,726 Skytop Coal Co. 19,726 Skytop Coal Co. 19,398 Jones Coal Corp. 19,205 Tarrone Coal Corp. 19,205 Tarrone Coal Co. 18,100 Boslege Coal Co. 18,608 Gravity Coal Co. 18,008 Hillside Coal Co. 18,008 Hillside Coal Co. 17,809 Masters Coal Co. 17,809 Masters Coal Co. 17,609 Clanforcoro Coal Co. 17,609 Clanforcoro Coal Co. 17,600 Mazzoni Coal Co. 15,229 Rizzardi Coal Co. 15,229 Rizzardi Coal Co. 15,007 Mine Hill Coal Co. 15,007 Compiled, typed: Ber.	Firete & Suecora	43,141	Alimas bros.	10,50
Sernice White Ash C.Co. 23,367	Dewees Bros.	23,095	Dantas, Alired	10,40
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Tood attendants	75 - 28 - 28 - 28 - 28 - 28 - 28 - 28 - 2	290
Electricians	3 2 1 2 1 2 8 1 6 6 8 8 6 1 2 8	1,98
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Timbermen - rockmen	48889373868373868888888888888888888888888	3246
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rnuuers Drivers &	112 333333355011 0 22 5 6 6 6 7 1 1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	529
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Machine runners	48 5 7 1 8 8 4 4 9 8 8 8 1 1 1 1 1 9 9 1 8 2 7 1 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	184
Miners! Laborers	110 100 100 100 100 100 100 100	14330
Miners	55. 55. 55. 55. 55. 55. 55. 55. 55. 55.	18/106
Asst. foremen & fire bosses	8221324828232328572282	1485
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Trackmen		188
Engineers &		2653
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Foremen	8877785888648568280 887778588	737
Superintendents	252255000100000000000000000000000000000	360
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Fatal Accidents - 1949

Name of wictim	Address	Company	Colliery, mine, etc.	Date	Cause of injury
Adams, Guy L. Aliford, William Anderson, Benjamin W. Argona, Frank Bartossek, Walter Batcha, Joseph Bell, Peter Beatchekl, Waddo S.	R. D. Herndon, Pa. 1399 Murray St., Forty-Fort 701 W. Grove St., Taylor 202 S. Main St., Pittston Kingston, Pa. 109 Church St., Taylor 30 Church St., Markocke	Win. Schwalm & Co. Lehigh Walley Coal Co. McKfat Coal Co. Interests Kehoe-Parge Coal Co. Glen Alden Coal Co. Hetedlerge Coal Co. Gowen Coal Co. Cowen Coal Co.	Mine Dorrance Pyne Red Ash Woodward Heidelberg Gowen	Apr. 18 Oct. 17 June 3 Apr. 19 June 11 Apr. 29 Feb. 14 Feb. 10	Fall of coal from rib Fall of roof Mine cars, struck, rum over Fall of roof Fall of roof Fall of roof Gars, saught between car & face Fall of roof Cars, struck by rumaway trip,
Blaine, James G.	52 Waller St., Wilkes-Barre	Ten Alden Coal Co.	S. Wilkes-Barre	Mar. 31	when coupling link broke Cars, thrown off, when rope clevice became disengaged & trib ran down plane
Boheneck, George Bosack, John Busocker, John C.	610 Oak St., Old Forge Marlin, Pa. 160 W. Broadway, Mauch Chunk	Knox Coal Co. Markson Coal Co. Lehigh Navigation Coal Co.	Schooley Markson Lansford		Fall of roof Fell into header between coal pockets, outside Explosion of gas
Butler, Michael F. Cavanaugh, Hugh Chickalochick, Michael Closser, Arthur B.	OUL MAIN St., Sugar Noten 79 Regent St., Wilkes-Barre . 1412 St., Ann St., Scranton 3 S. 4th St., Frackville	(then Alden Coal Co. (then Alden Coal Co. Moffat Coal Co. Interests Phila. & Reading C. & I. Co.	S. Wilkes-Barre S. Wilkes-Barre Taylor St. Nicholas	Jan. 5 Feb. 10 Apr. 1	dars, iell, run over, attempt- ing to board moving trip Explosion of gas Fall of roof Crushed between elevator and
Comer, Luke Condo, Thomas Curley, Frank	Plymouth, Pa. 82 Walnut St., Wilkes-Barre Locust Dale, Pa.	Glen Alden Coal Co. Length Valley Coal Co. Phila. & Reading C. & I. Co.	Lance Franklin Potts	Apr. 5 Oct. 13 Nov. 21	shaft structure Fall of roof Gars, caught between, when mov-
Daubenspeck, William Delaney, William	131 E. Lehigh St., Coaldale 1223 W. Coal St., Shenandoah	Lehigh Navigation Coal Co. Kohinoor Coal Co.	Tamaqua Kohinoor	Apr. 13 Mar. 11	ring of the struct a scanding or Premature blass Burned, clothing caught fire from fire he built outdoors
Dizbarzdis, John Domer, Julius Ellard, Rudolph	59 Pulaski St., Buttonwood 52 Sharb St., Edwardsville 221 W. Taylor St., Taylor	(Len Alden Coal Co. *Pagnotti Coal Co. Interests Knox Coal Co.	Buttonwood Harry E. Schooley	0ct. 14 Nov. 14 Oct. 25	Fall of roof Fall of roof Fall of roof disloaged timber, which struck him
Ey, Raymond Fertig, Newton	416 W. Main St., Girardville Lavelle, Pa.	Gilberton Coal Co. Hammond Coal Co.	Packer #5 Hammond	May 4 June 21	Mine fire Fall of roof

Name of victim	Address	Сощрапу	Colliery, mine, etc.	Date	Cause of injury
Flynn, John J.	230 Innan Park, Hanover Twp.	Glen Alden Coal Co.	Buttonwood	Dec. 22	Struck, knocked down shaft by chain used in hoisting, which broke and flew
Galinsky, Edward	Shenandoah, Pa.	Salem Hill Coal Co.	Salem Hill	Dec. 2	Run over bulldozer, which got
Gallagher, Edward	Larksville, Pa.	Glen Alden Coal Co.	Woodward	July 14	over of control mills he was operating it Blast, struck by piece of rail he fired on to break it.
Gasperini, Olimpio Hannon, Patrick Hassick, George	5 Washington St., W.Wyoming Maltby Coal Co. 107 George Ave., Parsons Hudson Coal Co. 77 Anthracite St., Wilkes-Barre (Ten Alden Coal Co.	Maltby Coal Co. Hudson Coal Co. re (1en Alden Coal Co.	Maltby Baltimore #5 S. Wilkes-Barre	Nov. 10 Feb. 16 Jan. 5	Fall of middle rock Fall of coal from rib Explosion of gas
Hughes. John W.	102 Newport St., flen Lyon	Susquehanna Collieries Div. (W. A. Hanna Co. (Susquehanna Collieries Div.	Glen Lyon	Sept. 1	Fall of roof
		(M. A. Hanna Co.	Glen Lyon	Aug. 17	Fall of coal from rib
Kelly, William Kopiak, Harry	1193 W. Centre St., Shenandoah 1215 New Grant St., Nanticoke	ah Gilberton Coal Co.	Packer #5 Bliss	May 4 Dec. 19	Mine fire Fall of roof
Kopko, Louis	351 E. Grove St., Nanticoke		Truesdale	Oct. 13	Fall of roof
Kosloski, Charles S.	172 Orchard St., Plymouth	Glen Alden Coal Co.	Avondale	Mar. 11	Mine cars, apparently jumped off
					motor, thought trip was out of control
Kurowicki, Joseph S.	118 W.Washington St., Nanticoke		Loomis	Feb. 4	Fall of fire clay
Kurtinitis, William	27 Morgan St., Pittston		Red Ash	Apr. 19	Fall of roof
Lisoski, William	324 East Ave., Mt. Carmel	Phila. & Reading C. & I. Co.	Reliance	Apr. 11	Cars, empty trip derailed, pinned him against trip on another track
Loney, Mordecai A.	Larksville, Pa.	Hudson Coal Co.	Loree	Dec. 19	Fall of roof
Lukashefski, William	502 E. Scott St., Olyphant 31 E. Union St., Manticoke	Hudson Coal Co. (Susquehanna Collieries Div.	01yphant	Jan. 17	Fall of roof and rib
		(M. A. Hanna Co.	No. 7	May 1h	Railroad cars, fell, run over
Maas, Walter	R. D. #1, Jermyn, Pa.	Clen Alden Coal Co.	Baker	Aug. 29	Mine cars, caught by low timber, knocked off car
Martin, William	Edwardsville, Pa.	Glen Alden Coal Co.	Woodward	Nov. 12	Blast
McKay, Robert	207 Green St., Edwardsville	Glen Alden Coal Co.	Woodward	Nov. 9	Mine cars, caught against rib by
	88 Main St., Inkerman	Kehoe-Berge Coal Co.	Mosca	Nov. 5	Fall of coal
Newton, William H.	102 E. Hazard St., Summit Hill Lehigh Navigation Coal	ll Lehigh Navigation Coal Co.	Co. Lansford	Aug. 5	Mine cars, caught between car he was running and empty car left
Nitkowski, Kasmer	18 E. Grand St., Nanticoke	Glen Alden Coal Co.	Loomis	Feb. 4	standing on crossing Fall of fire clay

Name of victim	Address	Company	Colliery, mine, etc.	Date	Cause of injury
O'Brien, William	16 East A. St., Girardville	Gilberton Coal Co.	Packer #5	May 4	Mine fire
Ogin, Ernest, Jr.	290 Andover St., Wilkes-Barre	Jermyn-Green Coal Co.	No. 14	Mar. 5	Mine cars, fell off motor,
					coupling pulled apart,
Oravic. Andrew	5 Spencer St., Wilkes-Barre	Lehich Valley Coal Co.	Prospect	June 10	Mine cars, not properly blocked,
		(Susquehanna Collieries Div.			ran away
Patterson, John	132 Park Ave., Nanticoke	(M. A. Hanna Co.	No. 7	Dec. 21	Hook on drawhead broke, rope &
70	10 10 10 10 10 000		4.7 a also	25	Clevis chain flew, struck him
Pollini, Albert	138 Holden St., W. Wooming	Lehich Valley Coal Co.	Westmoreland	May 27	Fall & struck head, trving to
					escape dislodged prop &
Popalis, John	128 N. Union St., Shenandoah	Phila. & Reading C. & I. Co.	Knickerbocker	0ct. 3	Rush of material in pitching
Prest. Tosonh	108 Adams St. Breeland	Greenwood Mining Co.	Drifton #9	0ct. 12	Fall of roof
Pringle, John	17h2 Nav Aug. Ave. Scranton	Moffat Coal Co. Interests	Storrs	Apr. 21	Fall of roof
Richards, Thomas	Edwardsville, Pa.	Glen Alden Coal Co.	Woodward	Aug. 24	Material fell down shaft
Roache, Thomas	532 Main St., Sugar Notch	Clen Alden Coal Co.	Huber	May 2	Explosion of gas
Romanini, Anthony	89 Spring Court, Pittston	Pagnotti Coal Co. Interests	No. 9	Sept. 1	Fall of roof coal
Romanowski, John	401 Rear Main St., Dupont	Barney Guzior Coal Co.	Wine	May 6	Fall of roof
Russell, Thomas	932 Mt. Vernon St., Scranton	Keyser Valley Coal Co.	Mine	0ct. 22	Fall of roof
Sadusky, Albert G.	Kaska St., Middleport	Lehigh Navigation Coal Co.	Coaldale	Nov. 23	Suffocated by rush of material
					in chute
Sagan, Andrew	230 Phillip St., Nanticoke	Glen Alden Coal Co.	Truesdale	Jan. 20	Fall of roof coal
Shatrowskas, John	11 W. First St., Wyoming	Pagnotti Coal Co. Interests	No. 6	Dec. 20	Fall of roof
Shell, Thomas	Wiconisco Ave., Tower City	Pagnotti Coal Co. Interests	Joliett	Nov. 18	Rush of loose coal through
					breast battery drawhole
Shigo, Wassil	Harleigh Terrace, Harleigh	Jeddo-Highland Coal Co.	Jeddo #7	0ct. 15	Electrocuted, grasped chain
					which was charged, on account
					or a leak in pump switch
Sims, Stanley G.	Larksville, Pa.	Hudson Coal Co.	Loree	Mar. 3	Fall of buckstone
Skrabak, Joseph	527 E. Ridge St., Lansford	Lehigh Navigation Coal Co.	Coaldale	Nov. 1	Fall of roof
Sperada, Benjamin	411 S. Washington Ave., Scrant	on Moffat Coal Co. Interests	Continental	Aug. 10	Fall of roof coal
Stashick, Joseph G.	22 Arch St., Glen Lyon	22 Arch St., Glen Lyon (Susquehanna Collieries Div.			
		(M. A. Hanna Co.	Glen Lyon	Aug. 17	Fall of coal from rib
Szewczuk, Michael	805 W. Grove St., Taylor	Moffat Coal Co. Interests	Archbald	Jan. 25	Fall of roof
Tretter, Joseph	211 South St., Minersville	Fegley & Tretter	Mine	Dec. 12	Fall of roof
Verbitski, Alexander	282 Mayock St., Wilkes-Barre	Huckon Coal Co.	Delaware	Jan. 10	Fall of roof
Vitz. Joseph. J.	130 F. Union St., Nanticoke	Glen Alden Coal Co.	Loomis	0ct. 8	Fall of roof

Name of wictim	Address	Company	Colliery, mine, etc.	Date	Cause of injury
Volowich, Edward	Box μ2, R.D. 1, Hunlock Creek (Susquehanna Collieries Div.	(Susquehanna Collieries Div.			
		(M. A. Hanna Co.	No. 7	July 29	Fall of roof
Walters, Melvin C.	Donaldson, Pa.	Pagnotti Coal Co. Interests	Indian Head	Jan. 31	Fall of soggy clay, coal, top
					rock and surface rock
Warenko, Stanley J.	4 Enterprise St., Glen Lyon	(Susquehanna Collieries Div.			
		(M. A. Hanna Co.	Glen Lyon	Sept. 16	Asphyxiated by methane gas
Warko, Joseph A.	Larksville, Pa.	Hudson Coal Co.	Loree	Nov. 15	Cars, struck, run over
Washinsky, Stanley	88 Noues Ave., Swoyerville		Maltby	Feb. 22	Fall of roof
Watto, John, Jr.	326 Catawissa St., Nesquehoning	Lehigh Navigation Coal Co.	Lansford	Nov. 21	Explosion of gas
Weaver, James	Larksville, Pa.		Loree	Feb. 3	Falling material from spoil
					bank, at stripping
Nowak, Joseph	126 E. Coal St., Shenandoah	Gilberton Coal Co.	Packer #5	May 4	Mine fire
Foynik, George	295 New Grant St., Wilkes-Barre	Hudson Coal Co.	Baltimore #5	Feb. 25	Fall of roof
Tastrumski, Thomas	103 Hudson Road, Hudson	Conlon Coal Co.	Madeira	May 24	Fall of roof
Yencha, Michael	119 E. Carey St., Plains	Lehigh Valley Coal Co.	Henry	Apr. 4	Fall of roof
Yniguaz, Peter	218 W. Atlantic St., Shenandoah	Phila. & Reading C. & I. Co.	Maple Hill	Jan. 19	Fall of roof
Turchak, George	873 Miller St., Luzerne	Pagnotti Coal Co. Interests	Harry E.	Feb. 7	Fall of roof
Zatorski, John	254 River St., Nanticoke	(Susquehanna Collieries Div.			
		(M. A. Hanna Co.	No. 7	May 23	Fall of top coal
Ziminski, George	521 W. Green St., W. Hazleton	Cranberry Mining Co.	Cranberry	May 5	Fall of roof

Total: 92 fatalities * Pagnotti Coal Co., Number Wine Coal Co., Joliett Coal Co., Indian Head Coal Co. and Sullivan Trail Co. Compiled, typed: Ber

Causes of Fatal Accidents, By Counties, 1949

TatoT	83	папап пап	92 9 1
Маупе		11111 111	
Susquehanna	111111111111	11111111	1 1
Sullivan		11111111	-
Schuylkill	2011111114214	titet tee	18
*p.dmndiaoN	e16111111110	11111 111	1 1 ~
Luzerne	25.000000000000000000000000000000000000	Taala all	1 3
Гаскамалла	3001111111100	11111 111	1 1 00
Dauphin		11111 111	1 1
Columbia	THE LITTIES .	11111 111	1 1 -
Carbon	1111110111110	etiii 111	1
Traide	Direct falls Indirect falls Indirect falls Sally transportation Fally of person Fall of I loose coat through breast battery drawnote Total inside Outside	Mine cars failtroad cars Electricity Fall of person Fall of material from spoil bank Struck, knocked down shaft by chain used in hoisting, which Run over by bulldozer Bune, jochhing igniede from open fire he built Gaught between elevator and shaft structure while finstalling	pipe in breaker. Total outside

Compiled, typed: Ber

Production Per Fatal Inside, and Production Per Fatal Inside and Outside, By District

Dist-	Inspector	Deep mined production	Stripping production	Bank production	Total production	Fatal- ities inside	Fatal- ities outside	Fatal- ities total	Production per fatal deep mined	Production per fatal inside & outside
-	T Thundan	1 1.97 1.63	214 404	83 265	2 117 31.3	-		-	1 1.27 1.63	5,117,3/13
7	o r mantey	1,4421,405	CTO *000	603,600	5006/1162	1	1	1	Tone 13467	CHC 6 1 TT 6 7
2	T. L. Wackley	1,204,311	120,633	135,751	1,460,695	1	1	1	ı	1
3	W. G. Ward	1,311,742	138,663	167,277	1,617,682	~	1	٣	437,247	539,227
ıv	T. D. Rees	1,16,194	198,986	114,424	1,459,604	v	1	v	229,239	291,921
. 40	I. J. Bonner	825,563	205,186	51.172	1.081.921	. ~	1		275,188	360,640
7	A. Wilson	873,620	257,891		1,131,511	'n	1	· V	174,724	226,302
- 00	D. H. Connelly	1.038,783	37,262	109,873	1,185,918	-7	1	7	259,696	296,180
6	D. W. Cosslett	1,250,951	27,946	669,66	1,378,596	ω	1	80	156,369	172,325
10	J. C. Hines	1,001,945	113,372	9,014	1,124,331	m	1	٣	333,982	374,777
7	T. M. Beaney	1,354,613	77,1145	. 1	1,432,058	ω	1	œ	169,327	179,007
12	E. C. Curtis	1,721,715	136,521	ı	1,858,236	6	7	10	191,302	185,824
13	J. D. Edwards	1,573,838	211,445	•	1,785,283	7	٦	77	393,460	357,057
큐	K. C. Lee	1,593,925	419,268	1,542	2,014,735	80	٦	6	199,241	223,859
15	R. Ditzler	526,013	566,529	164,303	1,256,845	2	7	٣	263,007	976,814
16	Vacant	1,85,996	612,186	275,1488	1,373,670	г	1	7	1,85,996	1,373,670
17	W. J. Clements	1,594,873	696,569	217,268	2,418,710	ς,	1	٣	531,624	806,237
18	J. J. Shober	1,532,430	601,167	23,499	2,157,096	2	7	~	766,215	719,032
19	T. A. Ryan	744,441	2,005,033	339,389	3,088,863	1	7	٦	1	3,088,863
20	J. H. Morgan	1,170,984	653,564	263,611	2,088,159	Н	2	٣	1,170,984	696,053
21	H. Hilbert	963,502	93,716	235,393	1,292,611	٦	1	٦	963,502	1,292,611
22	R. O. Schneider	1,344,699	1,206,424	301,199	2,852,322	9	ı	9	224,117	1,75,387
23	J. P. Brophy	1,212,624	1,67,733	194,160	2,174,517	2	1	2	606,312	1,087,259
24	J. R. Ruane	1,1,21,089	734,958	797,097	2,953,144	ı	ı	1	1	1
25	G. E. Smith	286,533	342,200	254,811	883,544	Н	П	2	286,533	141,772
56	J. F. Reinoehl	720,607	149,063	591,535	1,761,205	г	1	7	720,607	1,761,205
27	H. F. Shomper	477,433	190,712	93,374	761,519	2	1	2	238,717	380,760
		28 800 887	במס נמס ננ	1.000 11.1.	911 012 11	ď	c	S	21.7 050	1.80 080
		Innicanias	ION TON TT	4,0629,1444	44, (10, 110	C _O	٨	76	741,9227	ant state

Compiled, typed: Ber

Production Per Fatal Inside, and Production Per Fatal Inside and Outside, By Operator

Operator	Deep mined production	Stripping production	Bank production	Total production	Fatal- ities inside	Fatal- ities outside	Fatal- ities total	Production per fatal deep mined	Production per fatal inside and outside	Empl- oyes
Philadelphia & Reading Coal & Iron Co. Jeddo-Highland Coal Co. Jeddo-Highland Coal Co. Lehigh Yalley Coal Co. Lehigh Yalley Coal Co. Hammond Coal Co. Hammond Coal Co. Jernyl-Treen Coal Co. Jernyl-Treen Coal Co. Glen Alden Coal Co. Glen Alden Coal Co. Glen Alden Coal Co. Chennershams Collished Hy.	2,373,081 h05,116 2,322,556 2,072,211 3,115,897 3,115,897 335,685 1,386,217 5,665,888	2,149,276 393,225 1,052,509 213,330 220,494 120,048 3,206 117,612 805,021	770,451 49,317 11,337 17,106	5,292,808 3,424,382 2,296,908 3,366,391 376,497 378,497 378,497 378,497 1,503,859	ν ινν~ η ηνί	adalalila	27711874616	171,616 1,016 1,016 1,016 1,016 1,017 1,018 1,018 1,018 1,018 1,018 1,018	882,135 798,371 570,730 1459,382 420,799 375,197 338,891 300,772	8720 1205 5972 5194 6542 726 1631 2611
W. A. Hanna Co. 1. Indian Head Coal Co. 1. Enton Coal Co. 2. Entor Coal Co. 2. Entor Coal Co. 2. Entor Coal Co. 2. Entor Coal Co. 3. Cranberry Mining Co. 3. Conlon Coal Co. 3. Conlon Coal Co. 3. Conlon Coal Co. 3. Control Coal Co. 3. Control Coal Co. 3. Control Coal Co. 3. Entor Coal Co. 4. Entor Coal Co. 4.	1, 88, 62, 73, 73, 73, 73, 73, 73, 73, 73, 73, 73	38,7689 38,7689 10,590 12,519 22,937 22,326 27,828 27,700 11,02h 11,02h 26,535 26,535 27,636	61,050 74,180 1,293 2,878 2,878 2,670	1, 981, 1981	C0160101144441044	aaa	0015010101111110031	2.66,691 2.17,653 2.17,653 2.17,187 2.17,187 2.17,638 2.17,638 2.17,638 2.17,938 2.17,938 2.17,938 2.17,938 2.17,938 2.17,938 2.17,938 2.17,938 2.17,938 2.17,938	246, 56, 56, 56, 56, 56, 56, 56, 56, 56, 5	138 173 173 173 173 173 173 173 173 173 173
William Schwalm Fegley & Tretter Barney Guzior	8,361 5,885 2,610	1 1 1	111	8,361 5,885 2,610	анн		iddd	8,361 5,885 2,610	8,361 5,885 2,610	8 ° 1

TOTAL	182	189	225	218	171	137	169	165	131	92
DEC.	16	п	17	11	1/1	10	13	16	8	6
NOV.	12	п	17	23	16	6	10	10	13	12
ocr.	16	13	1,1	13	13	17.	18	114	7	п
SEPT.	17	19	17	37¢	15	8	15	13	10	~
AUG.	11	27	13	22	114	16	10	10	17	7
JULY	7	15	23	17	12	12	7	12	15	2
JUNE	19	18	23	13	п	17	w	5	7	7
KAY	17	17	22	20	ηt	2*	17	12	8	11
APRIL	19	11	23	16	п	13	77.	16	6	10
MARCH	77.	15	20	56	16	77	18	H	12	>
788.	18	13	23	7	23	80	z	12	10	10
JAN.	16	22	15	80	큐	큐	12	34	18	8
TEAR	1940	19/1	1942	1943	1944	1945	1946	1947	1948	1949

Explosion - 14 * Idle 17 days - strike

Accidents in Which Five or More Persons Were Killed, 1847 - 1949

Year	Date	Colliery	Location of colliery		umber
1847	Feb.	Spencer	Pottsville	Explosion of gas	7
1869	Sept. 6	Avondale	Plymouth	Mine fire	110
1870	Mar. 22	Potts	Locust Dale	Boiler explosion	5
	Aug. 10	Heins & Glassmire	Middleport	Cage fell down shaft	9
2.002	Aug. 29	Preston #3	Girardville	Car fell down slope	7
1871	May 27	West Pittston	West Pittston	Suffocated by smoke from	
	0-4 0	014 - 7 - 1 4 - 1		burning breaker	20
1873	Oct. 2 June 10	Otto Red Ash	Branch Dale Shamokin	Explosion of gas	10
1877	May 9	Henry Clay Wadesville	Wadesville		10
1878	Jan. 15	Potts	Locust Dale	" " "	(
1879	May 6	Audenried	Audenried	" " "	2
1017	Nov. 2	Mill Creek	Mill Creek	и и и	
1880	May 3	Lykens Valley	Shamokin	11 11 11	á
1882	May 24	Kohinoor	Shenandoah	n n n	ć
1884	Aug. 21	Buck Ridge	Shamokin	Mine fire	7
1885	Apr. 6	Cuyler	Raven Run	Fall of roof	7 6 5 7 10
	Aug. 11	West End	Mocanaqua	Suffocated by gas from	
	0.			boiler fire	10
	Oct. 21	Plymoutn #2	Plymouth	Explosion of gas	6
	Dec. 18	Nanticoke #1	Nanticoke	Inrush of quicksand	26 26
1886	Aug. 30	Fair Lawn	Scranton	Explosion of gas	- 6
	Sept. 13	Marvine	Scranton	Suffocated by gas	8
	Nov. 26	Conyngham	Wilkes-Barre	Explosion of gas	12
1887	Apr. 27	Tunnel	Ashland	Suffocated by gas	5
	Oct. 1	Bast	Big Mine Run	Explosion of gas	5
1889	May 9	Kaska, William	Middleport	Car fell on cage in shaft	10
1890	Feb. 1	Nottingham "	Plymouth	Explosion of gas	ğ
	Mar. 3	S.Wilkes-Barre #3	Wilkes-Barre	97 19 99 99 19 88	8 8 5 26
	Apr. 2	Susquehanna #4	Nanticoke		26
1891	May 15 Feb. 4	Jersey #8 Spring Mtn. #1	Ashley Jeanesville	Drowned - water from old	
				workings	13
	Oct. 23	Richardson	Glen Carbon	Suffocated by gas	7
	Nov. 8	Susquehanna #1	Nanti coke	Explosion of gas	12
1892	Apr. 20	Lytle	Minersville	Drowned - water from old workings	10
	July 23	York Farm	Pottsville	Explosion of gas	15
1893	Apr. 1	Neilson	Shamokin	Mine fire	10
	June 22	Susquehanna #1	Nanticoke	Explosion of gas	5
	Sept. 21	Lance #11	Plymouth	и и и	6
1894	Feb. 13	Gaylord	Plymouth	Fall of roof	13
	July 17	East Sugar Loaf	Stockton	Explosion of powder &	
				dynamite	8
	Oct. 8	Luke Fidler	Shamokin	Mine fire	5
	Oct. 11	Henry Clay	Shamokin	Boiler explosion	6
1895	Feb. 18	West Bear Ridge	Mahanoy Plane	Explosion of gas	5
-0-/	Oct. 7	Dorrance	Wilkes-Barre	н н н	8 5 6 5 7 58 6 5 6
1896	June 28	Twin "2	Pittston	Fall of roof	50
7.000	Oct. 29	S.Wilkes-Barre #3	Wilkes-Barre	Explosion of gas	9
1897	Jan. 13	Wadesville	Wadesville	Crosshead fell down shaft Mine fire	2
	Sept. 28	Jermyn #1	Rendham	Mine fire	2
1898	Oct. 30 May 26	Von Storch Kaska, William	Scranton Middleport	Drowned - water from old	0
1090	May 20	haska, william	widdieborc	workings	6
	Oct. 1	Midvale	Wilkes-Barre	Mine fire	5
	Nov. 5	Exeter	West Pittston	Car fell on cage in shaft	9
1,900	Nov. 9	Buck Mountain	Mahanoy City	Explosion of gas	6 9 7
1901	Oct. 25	Buttonwood	Plymouth	и и и	. 6
1902	Nov. 29	Luke Fidler	Shamokin	и и и	7
	Dec. 9	S. Wilkes-Barre	Wilkes-Barre	Explosion, powder & dynamit	te 5
				11 11 11 11	
1904	Jan. 30	Maple Hill	Mahanoy City)
1904	Jan. 30 May 5	Maple Hill Lance	Plymouth	Mine fire	te 5

Accidents in Which Five or More Persons Were Killed, 1847 - 1949

Year	Tate	Colliery	Location of colliery		nber
1904	May 25	Williamstown	Willianstown	Suffocated by gas from	
	Nov. 2	Auchincloss	Nanticoke	mine locomotive	10
1905	Feb. 18			Falling down shaft	TO
1905	Mar. 9	Lytle	Minersville West Pittston	Fall of roof Falling down shaft	7
	Mar. 9	Clear Spring	Wilkes-Barre	ralling down shalt	10
1006	May 15	Conyngham	Shenandoah	Explosion of powder & dynamite	10
1906		Shenandoah City	Nanticoke	Explosion of pas	7
1907	Aug. 6 Mar. 2	Susquehanna #7 Holden	Taylor	EXPLOSION OF PAS	7
	June 18	Johnson #1	Priceburg	11 11 11	12
1908	May 12	Mount Lookout	Wyoming	11 11	7.0
	May 13	Prospect	Midvale	Fall of roof	12
	July 15	Williamstown	Williamstown	Explosion of powder & dynamite	2
	Aug. 28	Marrior Run	Wilkes-Barre	Line cars	6
1909	Mar. 2	Pennsylvania #14	Pittston	Explosion of gas	g
1909	Nov. 9	Auchincloss	Nanticoke	Line fire	0
1910	Jan. 11	Nottingham	Plymouth	Explosion of gas	8 9 7 72 72 5 5 6
1710	Mar. 12	S. Wilkes-Barre #5	Wilkes-Barre	Exhibition of Eas	7
1911	Apr. 7	Pancoast	Throop	Mine fire	70
1711	May 27	Cameron	Shamokin	Explosion of gas	16
	Sept. 12	Marvine	Scranton	Mine cars	
	Oct. 3	Drifton #2	Freeland	Cave-in	
1912	Jan. 9	Parrish	Plymouth	Explosion of gas	6
1913	Aug. 2	East Brookside	Tower City	H H H	20
1914	May 29	Maryd	Maryd	Overwinding of cage	-6
T) T/1	Sept. 16	Lehich #4	Lansford	Explosion of gas	7
	Dec. 9	Diamond	Scranton	Falling Down shaft	13
1915	Feb. 17	Prospect	Wilkes-Barre	Explosion of gas	13
1916	Feb. 8	Lance #11	Plymouth	Explosion of gas	7
1)10	Mar. 9	Hollenback #2	Wilkes-Barre	и и и	7
	Aug. 8	Woodward	Edwardsville	11 11 11	6
1919	June 5	Haltimore #5.	Edwardsville		U
	ouic)	(Faltimore Tunnel)	Wilkes-Barre	Explosion, powder % dynamite	CO
	July 8	Lansford	Lansford	Explosion of gas	72
1921	Mar. 9	Rahn	Seek	TAPLOSION OF PAS	2
1922	Nov. 3	Eddy Creek	Scranton	Premature blast	2
1923	Feb. 21	Alliance	Middleport	Explosion of gas	92 8 5 6 5 5 5 14
1/1/	June 26	Richards	Mount Carmel	# # # #	2
	Dec. 8	Mount Jessup #2	Jessup	Fall of roof	2
1924	June 6	Loomis	Nanticoke	Explosion of gas	71.
1925	May 22	Woodward	Edwardsville	n n n	7
	Aug. 3	Dorrance	Wilkes-Barre	11 11 11	10
1926	May 6	Randolph	Port Carbon	11 11 19	10
-,	July 3	Pettebone	Kingston	11 11 11	5 7
	Oct. 30	Susquehanna #7	Nanticoke	11 11 11	9
1927	Way 26	Woodward	Edwardsville	Fall of roof, followed by	7
-,-,	andy 20		Edilat do vII to	explosion of gas	7
1928	May 25	Baltimore #5	Wilkes-Barre	Explosion of gas	10
1930	Aug. 8	Gilberton	Cilberton	Fall of roof	10
1931	May 29	Richards	Nt. Carmel	Explosion of gas	8
1935	Jan. 21	Gilberton	Gilberton	11 II II	13
	May 7	S. Wilkes-Barre	Wilkes-Barre	Piece of rock fell down	رد
				shaft, struck cage	7
1936	Aug. 24	Clear Spring	West Pittston	Explosion of gas	5
1938	Apr. 27	St. Clair	St. Clair	Expression of Eas	5
	June 2	Volpe	Pittston Twp.	11 11 11	10
191,3	Sept. 24	Primrose	Minersville	11 11 11	15
1947	Jan. 15	Nottingham	Wilkes-Barre	11 11 11	15
	Apr. 10	Schooley	Exeter Boro.	11 11 11	10

Dist- rict	Operator & Stripping	Stripping production	Days worked	Emp! oye:
14	Alden Coal Co.	11,592	105	21
26	Alpec Coal Co.	97,868	228	7.
21	Jos. Banks Construction Co.	800	10	12
25	" "	78,939	206	30
_,	Total for Co.	79,739		41
16	Reaver Brook Coal Co.	16,876	111	10
1	John Booth, Inc.	168,586	239	70
1	Botscheller Coal Co.	6,877	85	
19	Brenier & Blew	2,840	32	
24	Bridy, Inc.	20,000	130	2
18 27	Froad Mountain Fuel Corp.	50,150	251	2
41	Buck Run Colliery Co. Timothy Burke, Inc.	116,799	145	91
1	Stripping	17.618	293	5
2	n	և7,618 28,789	21,4	1
_	Total for Co.	76,407		7
2	Butler stripping Co.	3,855	83	
10	Capone Coal Co.	22,649	*	4
19	Capparell Contracting Co.	100,861	207	79
12	Carey, Baxter & Kennedy	#	234	80
2	C. B. M. Coal Co.	8,058	146	1
22	Centralia Mining Co.	62,793	177	1
19	Coal Rain Coal Co.	16,305	81	13
19	Colitz Coal Co.	137,358	225	6
22	Columbia Coal Co.	4,022	*	
10	Conlon Coal Co.	13,021	*	
27	Pando, Jos. P., Sr.	7,188 98,473	57	1
1	EeAngelis Coal Co.	98,473	*	
6	DeRoma Coal Co.	3,992	110	
1-12	Dewees Bros.	23,695	263	4
14	Duryea Anthracite Co.	42,013	207	2
19	Eagle Hill Coal Co.	75,816	167	2
18	Fairclough Mining Corp.	2,377	43	,
10	Franklin Coal Mining Co.	18,976	*	i
25	Fritz Bros.	572	61	
45	Fronk, George Gasparini Stripping Co.	3,732	135	
1	Stripping	2,096	11	
2	# Torripping	732	12	
3	11	42,703	294	3
26	Ħ	76,730	215	61
	Total for Co.	122,261		109
1	Gateway Coal Co.	87,421	*	10
ī	Gianforcoro Coal Co.	1,334	*	
20	Gilberton Coal Co.	24,002	190	6
6	Gillizzi Coal Co.	53,993	216	1
	Glen Alden Coal Co.	223//2		-
7	Nanticoke Ex. Stripping	12,812	206	5
7	Newport " "	193,833	210	9
11	Empire "	13,300	250	3
11	Kidder "	32,593	117	í
13	A. E. Dick "	121,216	261	9
13	Kingston Ex. "	90,229	274	3
14	Wanamie "	208,117	269	5
16	Audenried	132,921	251	9
	Total for Co.	805,021		46
25	Goodspring Contracting Co.	11,664	78	10
15	Gowen Coal Co.	28,635	500	2
5-10	Greenwood Mining Co.	9,700	54	-
	Haddock Mining Co.			
15	Deringer	25,621	186	4
15	Tomhicken	42,284	186	2
18	Beaver Meadow	30,561	185	8
		98,466		150

22 Harmond 6 Harvis 9 Harry E 22 Hazle E 6 Heidelt 25 Hinchey 21 Hoffman 10 Pine 10 Lafti 11 Balti 12 Loree Huss Co 19 Strig 25 Hydrota 27 Indian 15 Jedo-H 8 Jernym 26 Jones C 5 Kehoe-E 6 Kehoe-E 7 Kehoe-E 16 Lattime 17 Coald 17 Tamaq 18 Lansf 18 Lansf 19 Westm 16 Black 16 Cranh 18 Hazle 16 L. K. C 20 Locust 21 Lopan C 22 Lombard 23 Lopan C 24 Lombard 25 Markson 1 Masters 27 KcCarri 28 McConne 21 Mid-Val 2 Mid-Val 3 Mid-Val 3 Mid-Val 4 Mid-	r & Stripping	Stripping production	Days worked	Empl- oyes
16	n Construction Co.	13,505	79	21
6 Harris 9 Harry E 22 Hazle E 6 Heidelb 25 Hinchey 21 Hoffman Hudson 10 Pine 10 Lafli 11 Balti 12 Loree Huss Co 19 Strip 25 Hydrota 27 Indian 15 Jeddo-H 8 Jermym 26 Jones C 5 Kehoe-S 26 Kelly C 20 Kohinoo 19 Kurchoc 5 Lackawa 16 Lattime 21 L. & C. Lehigh 17 Coald 17 Tamaq 18 Lenigh 18 Lansf 19 Westm 16 Black 16 Cran 18 Lansf 16 Black 16 Cran 18 Lansf 17 Coald 17 Tamaq 18 Lenigh 18 Lenigh 19 Westm 16 Lown C 20 Loust 21 Logan C 20 Loudt 22 Logan C 21 Lombard 22 Logan C 23 Logan C 24 Lombard 25 Markson 1 Masters 27 KcCarri 28 KcCarri 29 KcConne 21 McHale 3 Keadows 2 Kid-Val 1 K. & M.	Coal Co.	120,048	200	76
9 Harry E 22 Harle F 6 Heidelb 25 Hinchey 21 Hoffman Hudson 10 Pine 10 Lafti 11 Balti 12 Loree 15 Hydrota 27 Indian 15 Jeddo-H 8 Jermyn 15 Jeddo-H 8 Jermyn 26 Jones C 5 Kehoe-Z 26 Kelly C 20 Kohinoo 19 Kurchoc 10 Lati 11 Coald 17 Tamaq 18 Lansf 16 Lattime 21 L. & C. Lehirh 9 Westm 16 Cald 17 Tamaq 18 Lansf 21 Loree 22 Locust 23 Logan C 20 Locust 24 Lopan C 25 Lopan C 26 Lopan C 27 Lopan C 28 Lopan C 29 Lohb Co 20 Lombard 21 Lopan C 21 Lopan C 22 Markson 23 Logan C 24 Lopan C 25 Markson 1 Masters 27 McCarri 28 McCarri 29 McConne 21 McHale 21 McHale 22 Mid-Val 3 Meadows 22 Mid-Val 3 McConne	Coal & Contracting Co.	11,029	78	23
22 Hazle F 6 Heidelb 25 Hinchey 21 Hinchey 21 Hoffman Hudson 10 Delaw 10 Pine 10 Lafti 11 Balti 12 Loree Huss 26 15 Hydrota 27 Indian 15 Jeddo-H 8 Jeruyn— 26 Kehoe-W 20 Kohinoo 19 Kurchoc 5 Lackawa 16 Lattime 21 L. & C. Lehigh 17 Coald 17 Tamaq 18 Lansf 16 Black 17 Coald 17 Tamaq 18 Lansf 16 Coald 17 Loree 1 Lehigh 18 Lansf 16 Loren 17 Loree 18 Lansf 16 Coald 17 Tamaq 18 Lansf 18 Hazle 19 Westm 10 Hazle 20 Locust 21 Lopan C 22 Lombard 23 Lopan C 24 Lombard 25 Marmson 1 Masters 27 McCarri 28 McConne 29 Mid-Val 20 Mid-Val 21 K. & M.	& Walsh	29,263	83	20
6 Heidelt 25 Hinchey 21 Hoffman Hudson 10 Delaw 10 Pine 10 Lafti 11 Balti 12 Loree 19 Strip 25 Hydrota 27 Indian 15 Jedo-H 26 Kelly C 20 Kohino 16 Lattime 21 L. & C. Lehigh 17 Coald 17 Tamaq 18 Lansf 16 Cranb 18 Hazle 6 L. K. C 20 Lowst 1 Hazle 2 Lopan C 20 Lombard 1 Lansf 16 Lattime 2 Lehigh 17 Coald 17 Tamaq 18 Lansf 16 Cranb 18 Hazle 6 L. K. C 20 Lowst 1 Lansf 16 Canb 18 Hazle 10 Lombard 1 Lombard 2 Lombard 2 Lombard 1 Maxters 1 KcCarri 2 McCarri 2 McGarri 2 McCarri 2	. Coal Co.	12,519 98,708	97	20
25 Hinchey 21 Hinchey 21 Hinchey 22 Hoffman 30 Delaw 310 Pine 310 Pine 311 Balti 31 Loree Huss 20 427 Hydrota 31 Hydrota 327 Hydrota 328 Hydrota 329 Hydrota 320 Kelly C 320 Kohinoo 320 Kohinoo 321 Lehigh 322 Lehigh 332 Lehigh 3432 Logan 3432 Logan 3432 Logan 3432 Logan 3532 Logan 3532 Logan 364 Lombard 365 Lombard 367 Lombard 37 Lombard 38 Lang 38 KcCarmi 38 Lang 38 KcCarmi 39 Lombard 40 Lynott 42 Mammoth 42 Meadows 43 Markson 43 Masters 43 Logan 54 Markson 55 Markson 56 Markson 57 McConne 58 McConne 59 McConne 51 McConne 51 McConne 52 Mid-Val 53 McConne 53 Mid-Val 54 Mid-Val 55 Mid-Val 56 Mid-Val 57 McConne 58 Mid-Val 59 Mid-Val 50 Mid-Val	rook Coal Co.	98,708	-1.0	97
21 Hoffman Hudson 10 Delaw 11 Balti 11 Balti 12 Loree Huss Co 19 Strig 25 Hydrota 27 Indian 15 Jeddo-H 8 Jermyn 26 Jones C 20 Kohinoo 19 Kurchoc 5 Lackawa 16 Lattime 21 L. & C. Lehigh 17 Coald 17 Tamaq 18 Lansf 16 Black 16 Cranb 18 Hazle 6 L. K. C 20 Locust 21 Lopan C 20 Lombard 21 Lopan C 21 Lopan C 22 Lopan C 23 Lopan C 24 Lopan C 25 Lombard 26 Lombard 27 Lombard 28 Lombard 29 Lohb C 20 Locust 21 Lombard 22 Mammoth 25 Markson 1 Masters 27 McCarni 2 McConne 21 McHale 3 Meadows 2 Wid-Val 1 N. & M.	erg Coal Co.	22,326	246	10
Hudson Delaw	& McGinley	36,638	290	28
10 Delaw 10 Pine 10 Pine 10 Pine 10 Lafii 11 Balti 12 Loree Huss 2c 19 Strip 25 Hydrota 27 Indian 15 Jeddo-H 8 Jernyn- 26 Kehoe-S 26 Kelly C 20 Kohinoo 19 Kurchoc 5 Lackawa 16 Lattime 21 L. & C. Lehigh 17 Coald 17 Tamaq 18 Lansf 16 Black 16 Cranb 18 Hazle 20 Loust 21 Lehigh 22 Locust 23 Logan C 20 Lombard 24 Lombard 25 Lombard 26 Lombard 27 Lombard 28 Lombard 29 Lombard 21 Lombard 22 Mammoth 25 Markson 1 Masters 27 McCarri 2 McConne 21 McHale 3 Keadows 2 Wid-Val 1 N. & M.	Coal Co.	1,150	38	15
10	are Stripping	16,246	*	*
11 Balti 12 Loree Huss Co 19 Strig 25 Hydrota 27 Indian 15 Jeddo-H 8 Jermyn- 26 Jones C 5 Kehoe-Z 26 Kelly C 20 Kohinoo 19 Kurchoc 5 Lackawa 16 Lattime 21 L. & C. Lehigh 17 Coald 17 Tamaq 18 Lansf 9 Westm 9 Westm 16 Black 17 Cald 17 Tamaq 18 Lansf 18 Lengen 19 Lonb Co 20 Locust 21 L. & C. 20 Locust 21 Loren C 20 Loren 21 Loren C 22 Loren 23 Loren 24 Loren 25 Loren 26 Lynott 27 Markson 1 Masters 27 McCarri 2 McConne 21 McConne		18,296	*	*
12 Loree Huss Oc Strig 25 Hydrota 16 Hydrota 17 Indian 18 Jeado-H 8 Jermym 26 Jones C 18 Kehoe-E 26 Kehlv C 20 Kohinoo 19 Kurchoc 5 Lackawa 16 Lattime 21 L. & C Lehiph 17 Coald 17 Tamaq 18 Lansf 40 Hestm 16 Black 16 Cranb 18 Hazle 6 L. K. C 20 Louist 21 Lopan C 19 Lohb Co 21 Lopan C 19 Lohb Co 22 Lombard 15 Lombard 15 Lombard 16 Lynott 27 Markson 1 Masters 27 McCarri 2 McConne 21 McConne 21 McConne 22 Mid-Val 3 Meadows 2 Mid-Val 1 N. & M.		17,879	*	*
Huss Oc 19		31,552	250	29
19 Strig 25 "" 15 Hydrota 17 Indian 18 Jermym 26 Jones C 5 Kehoe-F 26 Kehlv C 20 Kohinoo 19 Kurchoc 5 Lackawa 16 Lattime 21 L. & C, Lehigh 17 Coald 17 Tamaq 18 Lansf 6 Black 16 Cranb 18 Hazle 6 L. K. C 20 Loust 12 Lopan C 19 Lohb Co 21 Lombard 15 Lombard 15 Lombard 15 Lombard 16 Lynott 22 Mammoth 25 Markson 1 Masters 27 McCarri 21 McConne 21 McCane 21 McCane 22 Wid-Val 1 N. & M.		136,521	*	*
19 Strig 25 "" 15 Hydrota 17 Indian 18 Jermym 26 Jones C 5 Kehoe-F 26 Kehlv C 20 Kohinoo 19 Kurchoc 5 Lackawa 16 Lattime 21 L. & C, Lehigh 17 Coald 17 Tamaq 18 Lansf 6 Black 16 Cranb 18 Hazle 6 L. K. C 20 Loust 12 Lopan C 19 Lohb Co 21 Lombard 15 Lombard 15 Lombard 15 Lombard 16 Lynott 22 Mammoth 25 Markson 1 Masters 27 McCarri 21 McConne 21 McCane 21 McCane 22 Wid-Val 1 N. & M.	Total for Co.	220,494		29
25 " 15 Hydrota 27 Indian 15 Jeddo-H 15 Jeddo-H 16 Jermyn- 26 Jones C 26 Kehoe-E 26 Kellv C 20 Kohinoo 19 Kurchoc 5 Lackawa 16 Lattime 21 L. & C. Lehigh 17 Coald 17 Tamaq 18 Lansf		193,450	191	82
15 Hydrota 27 Indian 15 Jeddo-H 28 Jermym- 26 Jermym- 26 Kelly C 20 Kohinoo 19 Kurchoc 5 Lackawa 16 Lattime 21 L. & C. 17 Coald 17 Tamaq 18 Lansf Lehigh 6 Cranb 18 Hazle 6 L. K. C 20 Locust 12 Lombard 6 Lynott 22 Markson 1 Masters 27 KcCarri 2 McConne 21 McGonne		98,080	198	43
27	Total for Co.	291,530		125
27 Indian 15 Jeddo-H 8 Jeraym 26 Jones C 5 Kehoe-E 26 Kellv C 20 Kohinoo 19 Kurchoc 5 Lackawa 16 Lattime 21 L. & C. 17 Coald 17 Tamaq 18 Lansf Lehigh 6 Canb 18 Hazle 6 L. K. C 20 Locust 23 Logan C 19 Lombard 6 Lynott 22 Lombard 6 Lynott 22 Lombard 6 Lynott 22 Lombard 6 Lynott 22 Markson 1 Masters 27 KcCarri 2 McCane 21 Meadow 2 Mid-Val 1 N. & M.	ted Anth. Fuel Co.	9,961	43	26
8 Jermym- 26 Jones C 5 Kehoe-E 26 Kelly C 20 Kehineo-E 26 Kelly C 20 Kohineo 19 Kurchoc 5 Lackawa 16 Lattime 21 L. & C, Lehigh 17 Coald 17 Tamaq 18 Lansf 9 Westm 16 Black 16 Cranb 18 Hazle 6 L. K. C 20 Locust 23 Logan C 19 Lohb Co 20 Lombard 15 Lombard 16 Lynott 22 Mammoth 25 Markson 1 Masters 27 KcCarri 2 McConne 21 McHale 3 Meadows 2 Wid-Val 1 N. & M.	Head Coal Co.	9,961 18,639	96	35
26 Jones C Kehoe-1 26 Kehoe-1 26 Kehly C 20 Kohinoo 19 Kurchoc 21 Lakawa 16 Lattime 21 L. & C, Lehigh 17 Coald 18 Lansf 4 Westm 16 Black 16 Cranb 18 Hazle 20 Locust 21 Logan C 21 Lopan C 22 Lombard 24 Lynott 25 Marmsoth 27 McCarri 28 McCarri 29 McConne 21 Meddows 21 Meddows 22 Mid-Val 3 Kedows 24 Mid-Val 3 Kedows 4 Moffat 26 McGarri 27 McCarri 28 McCarri 29 Mid-Val 3 Meddows 29 Mid-Val 3 McGarri 3 McGarri 3 McGarri 3 McGarri 3 McGarri 4 McGarri 3 McGarri 4	ighland Coal Co.	393,225	256	206
5 Kehoe-2- 26 Kelly C 20 Kohinoo 19 Kurchoc 5 Lackawa 16 Lattime 21 L. & C. Lehirh 17 Coald 17 Tamaq 18 Lansf 9 Westm 16 Black 16 Cranh 18 Hazle 6 L. K. C 20 Locust 22 Logan C 19 Lohb Co 22 Lombard 15 Lombard 16 Lynott 22 Mammoth 25 Markson 1 Masters 27 KcCarri 2 McCanne 21 McHale 2 Wid-Val 1 N. & M.	Green Coal Co.	393,225 3,206	82	8
26 Kellv C 20 Kohinoo 19 Kurchoc 5 Lackawa 16 Lattime 21 L. & C. Lehigh 17 Coald 18 Lehigh 18 Westm 16 Black 16 Cranb 18 Hazle 20 Locust 20 Lopan C 20 Loba 21 Lopan C 20 Loba 22 Lombard 23 Lombard 24 Lynott 25 Mammoth 27 McCarri 28 McCarri 29 McCarri 20 Mammoth 20 Markson 1 Masters 27 McCarri 2 McConne 21 McHale 2 Mid-Val 3 Meadows 2 Mid-Val 1 N. & M. Moffat	oal Corp.	19,205	126	36
20 Kohinoo 19 Kurchoc 5 Lackawa 16 Lattime 21 L. & C. Lehigh 17 Coald 17 Tamaq 18 Lansf 9 Westm 16 Black 16 Cranb 18 Hazle 6 L. K. C 20 Locust 22 Logan C 19 Lohb Co 22 Lombard 15 Lombard 16 Lynott 22 Mammoth 25 Markson 1 Masters 27 McCarni 2 McCarne 21 McCane 21 McHale 3 Keadows 2 Mid-Val 1 N. & M.	erge Coal Co.	44,985	211	45
19 Kurchoc 5 Lackawa 16 Lattime 21 L. & C. Lehigh 17 Coald 18 Lansf	onstruction Co.	600	31	6
5 Lackawa 16 Lattime 21 L. & C. Lehigh 17 Coald 18 Lansf 18 Lehigh 18 Lehigh 19 Westm 16 Black 16 Cranb 18 Hazle 20 Locust 21 Logan C 19 Lohb Co 22 Lombard 15 Lombard 6 Lynott 22 Mammoth 22 Mammoth 23 McCarni 24 McCarne 25 McCard 27 McCard 28 McCard 29 McCard 21 McCard 21 McCard 22 McCard 23 McCard 24 McCard 25 McCard 26 McCard 27 McCard 28 McCard 29 McCard 20 McCard 20 McGall 20 McGall 21 McAll 22 McGall 23 McGall 24 McGall 25 McGall 26 McGall 27 McGall 28 McGall 29 McGall 20 McGall 20 McGall 20 McGall 20 McGall 21 McGall 22 McGall 23 McGall 24 McGall 25 McGall 26 McGall 27 McGall 27 McGall 28 McGall 29 McGall 20 McGall 20 McGall 20 McGall 20 McGall 20 McGall 21 McGall 22 McGall 23 McGall 24 McGall 24 McGall 25 McGall 26 McGall 27 McGall 27 McGall 28 McGall 38 McGa	r Coal Co.	27,828	11,2	63
16 Lattime L. & C. Lehigh 17 Coald 17 Tamaq 18 Lansf 9 Westm 9 Westm 16 Black 16 Cranb 18 Hazle 6 L. K. C 20 Locust 23 Lopan C 19 Lohb Co 22 Lombard 6 Lynott 22 Mammoth 25 Markson 1 Masters 27 McCarri 2 McConne 21 Medale 2 Mid-Val 1 N. & M.	k Contracting Co.	2,400	37	12
21 L. & C. Lehirh 17 Coald 17 Tamaq 18 Lansf	nna Mining & Construction		266	41
Lehiph 17 Coald 17 Tamaq 18 Lansf Lehiph 9 Westm 16 Black 16 Cranb 18 Hazle 6 L. K. C 20 Locust 23 Logan C 19 Lohb Co 22 Lombard 6 Lynott 22 Markson 1 Masters 27 KcCarri 2 McConne 21 McHale 3 Meadow 2 Wid-Val 1 N. & M. Moffat	r Coal Corp.	92,276	193	60
17	Navigation Coal Co.	2,558	23	12
17 Tamag 18 Lansf Lehi sh 9 Westm 16 Black 16 Cranb 18 Hazle 6 L. K. C 20 Locust 21 Logan C 19 Lohb Co 22 Lombard 15 Lombard 6 Lynott 122 Marmoth 25 Markson 1 Masters 27 McCarri 2 McConne 21 McHale 3 Meadows 2 Mid-Val 1 N. & M.	ale Stripping	309,867	189	1/16
16		296,702	185	385
9 Westm 16 Black 16 Cranb 18 Hazle 6 L.K. C 20 Locust 19 Lohb Co 22 Lombard 15 Lombard 6 Lynott 22 Marmoth 25 Markson 1 Masters 27 McCarri 2 McConne 21 McHale 3 Meadows 2 Wid-Val 1 N. & M.	ord "	445,940	187	297
9 Westm 16 Black 16 Cranb 18 Hazle 6 L.K. C 20 Locust 19 Lohb Co 22 Lombard 15 Lombard 6 Lynott 22 Marmoth 25 Markson 1 Masters 27 McCarri 2 McConne 21 McHale 3 Meadows 2 Wid-Val 1 N. & M.	Total for Co.	1,052,509		828
16 Black 16 Cranb 18 Hazle 6 L. K. C 20 Locust 21 Logan C 19 Lohb Co 22 Lombard 15 Lombard 6 Lynott 22 Mammoth Markson 1 Masters 27 KcCarri 2 McConne 21 McHale 3 Keadows 2 Mid-Val 1 N. & M.	Valley Coal Co.		-0-	
16 Cranb 18 Hazle 6 L. K. C 20 Locust 23 Logan C 19 Lohb Co 22 Lombard 15 Lombard 6 Lynott 22 Marmoth 25 Markson 1 Masters 27 McCarri 2 McConne 21 McHale 3 Meadows 2 Mid-Val 1 N. & N Moffat	oreland Stripping	15,1,27	283	7
18 Hazle 6 L. K. C 20 Locust 23 Logan C 19 Lohb Co 22 Lombard 15 Lombard 6 Lynott 22 Mammoth 25 Markson 1 Masters 27 McCarri 2 McConne 21 McHale 3 Meadows 2 Mid-Val 1 N. & M.		30,800	231	18
6 L. K. C 20 Locust 23 Logan C 19 Lohb Co 22 Lombard 15 Lombard 6 Lynott 22 Mammoth 25 Markson 1 Masters 27 McConne 21 McMale 3 Meadows 2 Mid-Val 1 N. & M., Moffat	0	94,964	221	55 67
20 Locust 23 Logan C 19 Lohb Co 22 Lombard 5 Lombard 6 Lynott 22 Mammoth 25 Markson 1 Masters 27 KcCarri 2 McConne 21 McHale 3 Meadow 2 Wid-Val 1 N. & N.		72,139	235	
20 Locust 23 Logan C 19 Lohb Co 22 Lombard 5 Lombard 6 Lynott 22 Mammoth 25 Markson 1 Masters 27 KcCarri 2 McConne 21 McHale 3 Meadow 2 Wid-Val 1 N. & N.	Total for Co.	213,330 27,757	117	147
23 Logan C 19 Lohb Co 22 Lombard 15 Lombard 6 Lynott 22 Mammoth 25 Markson 1 Masters 27 McCarri 2 McConne 21 McHale 3 Meadows 2 Mid-Val 1 N. & N.		21,151	198	148
19 Lohb Co 22 Lombard 15 Lombard 6 Lynott 22 Mammoth Markson 1 Masters 27 KcCarri 2 McConne 21 McConne 21 McMilale 3 Meadows 2 Mid-Val 1 N. & Moffat	reek Construction Co.	191,790 29,848	16h	21
22 Lombard 5 Lombard 6 Lynott 22 Mammoth 25 Markson 1 Masters 7 McConne 21 McConne 21 McClale 3 Meadows 2 Mid-Val 1 N. & M. Moffat		2,207	31	18
15 Lombard 6 Lynott 22 Marmoth 25 Markson 1 Masters 27 McCarri 2 McCarri 2 McConne 21 McMale 3 Meadows 2 Mid-Val 1 N. & M.	o Coal Co.	6,711	177	7
6 Lynott 22 Mammoth 25 Markson 1 Masters 27 McCarri 2 McConne 21 McHale 3 Meadows 2 Mid-Val 1 N. & M.	o & Puglia	3,963	125	7
22 Mammoth 25 Markson 1 Masters 27 McCarri 2 McConne 21 McHale 3 Meadows 2 Mid-Val 1 N. & M. Moffat		819	12	11
1 Masters 27 McCarri 2 McConne 21 McHale 3 Meadows 2 Mid-Val 1 N. & M.	Coal Co.	155,138	*	*
27 McCarri 2 McConne 21 McHale 3 Meadows 2 Wid-Val 1 % % M. Moffat	Coal Co.	22.937	*	*
27 McCarri 2 McConne 21 McHale 3 Meadows 2 Wid-Val 1 % % M. Moffat	Coal Co.	17,802	145	19
21 McHale 3 Meadows 2 Mid-Val 1 M. & M. Moffat	ck Pros.	33,624	134	28
3 Meadows 2 Mid-Val 1 M. & M. Moffat	ll Stripping Co.	2,009	70	7
1 W. & M. Moffat		22,750	61	15
1 W. & M. Moffat	ide Coal Co.	14,433	148	12
Moffat	ley Anthracite Co.	3,094	24	5
	Coal Co.	12,085	*	*
2 04	ell Stripping	368	14	3
		54,597	207	21
5 Pyne	11	51,356	207	16
5 Natio	nal #	7 225	262	6
5 Taylo		7,225 4,066	65	12

Dist- rict	Operator & Stripping	Stripping production	Days' worked	Empl- oyes
	Moffat Coal Co. total	117,612		58
2	Moosic Mountain Coal Co.	4,446	86	6
26	Morea Mining Co.	68,山均	205	63
21	Morgan, Irvin	5,686	100	12
22 1	Morris Ridge Coal Co.	131,489	217	114
19	Motley Coal Co. Mountain Top Coal Co.	16,750 265,056	* 2 1 2	* 148
19	Musolino Contracting Co.	4,810	49	11
7	Nanticoke Excavating Co.	51,246	250	94
23	Natalie Coal Corp.	113,207	222	153
26	Noakes, Jeff	6,502	79	13
1	Northwest Coal Co.	31,274	*	*
6	Number Nine Coal Co.	38 , 758	265	21
16	Payne Coal Co.	110,872	238	73
2	Perry Construction Co.	59,841	256	15
6	Petrillo Coal Co.	8,788	124	4
3.0	Phila. & Reading Coal & Iron Co.	#00 #20	03.0	(2.0
19	Oak Hill Stripping	780,532	218	612
20 22	Shenandoah " Bast "	409,944	202	444 .75
22	Potts "	147,361 203,476	179 175	.15 84
23	Locust Gap "	29,923	92	71
23	Monitor "	208,957	203	214
24	Hepburn "	88,724	151	39
24	Rear Valley "	107,319	176	65
26	Knickerbocker ⁿ	173,040	224	146
	Total for Co.	2,149,276		1750
1	Pioneer City Coal Co.	14,018	*	*
8	Plains-Hilldale Coal Co.	34,056	206	17
	P. & M. Coal Co.	3,779	79	
3 2	Popple & Scatina	2,915	81	8 6 5 .5 69
25	Potts, Allen	1,487	25	5
5	Quinn & Walsh	1,657	43	-5
22	Raven Run Coal Co.	98,189	207	69
19	Repplier Coal Co.	184,181	171	64
26	Rhoads Contracting Co.	6,669	64	28
24	Rosini Bros. Sanchez Construction Co.	52,942	* 105	* 38
23 - 25 15	Sandy Run Miners & Producers	20,574 62,840	244	42
25-27	Scheib & Leitzel	9,069	121	14
25	Schumacher, J. E., & Son	75,817	174	35
25-27	Shade, John	3,267	45	íí
1	Simpson Coal Co.	14,042	*	
1	Slenska Bros.	7,446	172	* 5 4
14	Stackhouse Coal Co.	127	49	4
19	St. Clair Coal Co.	188,496	196	76
24	Steam Coals, Inc.	57,432	175	59
16	Steele, T. F., Coal Co.	58,582	123	53
2L	Stevens Coal Co.	382,687	171	173
25 24	Stiely, Wellington	6,350	207 *	4 *
1	Sunshine Coal Co. Surace, F. L.	3,200 4,396	*	*
_	Susquehanna Collieries Div.	4,570	^	· ·
	M. A. Hanna Co.			
14	No. 7 Stripping	71,962	196	34
14	Glen Lyon "	79,106	195	30
14	Alden "	6,351	108	*
22	Logan "	146,054	191	65
23	Burke McGrath "	9,174	163	14
23	Capitol "	23,027	69	26
23	Martinez-Bridy"	7,769	49	21
23	Penn Rich	11,638	61	27
23	United Constr."	19,958	104	16
24	Bear Valley "	7,102	39	21

Stripping Report, By Operator, 1949

Dist- rict	Operator & Stripping	Stripping production	Days worked	Empl- oyes
	Susquehanna Collieries Div.			
	M. A. Hanna, Contd.			
24	Zerbe Stripping	5,818	36	17
24	Scott 1-2 "	9,734	57	34
	Total for Co.	397,693		305
2-6	Sweeney Bros.	16,110	208	13
6	Talamelli Coal Co.	1,341	33	6
19	Tamaqua Coal Pockets	25,546	*	*
22	Tarrone Coal Co.	19,134	254	9
3 1	Throop Mining Co.	2,393	38	12
1	Tolerico Stripping Co.	44,142	282	28
16	Trader Horn Coal Co.	63,866	227	35
3	Turnpike Coal Co.	20,390	198	
27	Valent, Anthony	1,800	51	5
27	Valley Construction Co.	540	14	23 5 4 6
6 2	Vigoline Coal Co.	2,123	92	6
2	Vispi Coal Co.	6,238	*	*
1	Waddell Coal Co.	8,560	*	*
21	Williams Stripping Co.	47,267	132	83
19	Winton Coal Co.	25,175	198	17
22	Zimmerman Coal Co.	13,301	190	12
	Region total	11,081,087		7765

For names and addresses of stripping operators, see list of all operators, general managers and their mailing addresses, elsewhere in the report.

^{*} Not segregated from mine and breaker employes and days, therefore, not an accurate record.

[#] Included in Hudson Coal Co. stripping production

	TEAR	CARBON	COLUMBIA	DAUPHIN	LACKAWANNA	LUZERNE	NORTHUMBD.	NORTHUMBD. SCHUYLKILL	SULLIVAN	SUSQUE.	WAYNE	REGION
	1924 1932 1933 1934 1934 1935	2,654,820 1,754,134 1,886,081 1,821,911 1,610,409 2,057,670 1,703,018 1,873,797		17					1	655,000 91,296 184,773 97,514 130,715 179,236 216,010	152,981 122,981 157,506 157,506 128,196 128,242 265,390 159,010	68,776,5 68,776,5 59,115,3 169,501,5 169,507,5 56,798,9 51,359,1
Total Production (net tons)	1946 1946 1946 1946 1946 1946 1946 1946	2,076,336 2,514,177 2,514,177 2,101,171 2,101,171 3,100,639 3,100,639 3,100,639 3,100,639 3,100,639 3,100,639 2,833,809	1,251,944 1,057,913 1,026,346 1,067,473 1,067,473 1,117,228 1,157,754 1,157,754 1,157,754 1,673,195	126, 163 175, 587 175, 587 175		23, 187, 109 23, 377, 668 23, 377, 668 22, 672, 016 22, 672, 016 22, 672, 016 22, 002, 623 22, 770, 558 22, 770, 558 21, 551, 816	1,604,212 1,199,1401 1,199,1401 1,199,1401 1,199,1401 1,199,1401 1,199,103 1			15, 339 17, 339 121, 686 11, 686 12, 686 66, 126 66, 123, 908 1123, 908 112, 115		45, 500, 500, 500, 500, 500, 500, 500, 5
Empl-	1927 1933 1933 1934 1934 1945 1946 1946 1946 1946 1946 1946 1946 1946	1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1			23.5.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2			23,582 23,582 23,582 23,582 24,583 26,582 26,583 26	200 200 200 200 200 200 200 200 200 200	1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,	* * * * * * * * * * * * * * * * * * *	100,100 100

Twenty-one Year Study of Anthracite, By Counties, 1949

REGIO	80,39 80,39	13227558835888888888888888888888888888888
WA YNE	* * *	1
SUSQUE.	&급급	230 230 230 230 230 230 230 230 230 230
SULLIVAN	127 104 104	288 239 193 193 193 193 193 193 193 193 193 1
SCHOYLKILL	20,302 20,523 1 20,047 J	23.33.33.34.25.25.25.25.25.25.25.25.25.25.25.25.25.
NORTHUMBD.	6,636 6,521 6,009	28888888888888888888888888888888888888
LUZERNE	33,869 34,282 35,000	######################################
LACKAWANNA	12,381 12,222 11,702	% ** ** ** ** ** ** ** ** ** ** ** ** **
DAUPHIN	152 61 83	1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
COLUMBIA	2,319 1,963 1,760	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
CARBON	4,891 4,637 4,420	11. 12. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2
YEAR	1947 1948 1949	1992 1993 1993 1993 1993 1995 1995 1995 1995
	Empl- oyes, contd.	A vera ge days worked worked 1tles

Twenty-one Year Study of Anthracite, By Counties, 1949

Fatal 1946 (1416s, 1947) (1948) (1947)	7.5	6 - 6 - 6 - 6 - 6 - 6 - 6 - 6 - 6 - 6 -	DAUFELIN	LACLAMANNA 27	.	NOKIHUMBD.	SCHU ILALILL	SULLIVAN	SUSAUE.	WA INE	
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1937 1937 1933 1933 1931 1931 1931 1931	5 6 6 7 7 7 6 5 6 5 6 5 6 5 6 5 6 5 6 5	498,917	566,352	9,879,932	17,094,203	4,008,190	10,214,942	85,557	350,847	29,205	
1933 1933 1933 1933 1933 Wan-days 193	2 W 7 V 6	0000000		100000		300,000,00	0,402,710	70,000	74167	47,470	
1933 1933 1933 1934 1937 1937 1937 1937	27.77. 27.77.75.	230,200		700,002,0		2,100,610	4,740,290	30,404	100,001	91,040	
1933 1933 1933 1933 1933 1934 1934 1934	77,75	160,097		5,011,732		1,822,717	3,516,543	67,632	25,763	31,228	
1933 1933 1933 1933 1833 1831 1831 1831	756,	157,495		4,462,932		1,681,984	3,601,752	54,129	38,976	64,680	
193 193 193 193 Wan-days 193	- 0	206.878		5, 381, 563		1,958,718	1, 097, 1,56	88.891	K3.800	56 1,30	
193 193 193 Wan-days 193 193		178 100		ו אל רסב יו		701. 1.06	2 570 208	80,000	82,300	ממו	
193 193 193 Wan-days 193 191		10,000		4001001		79 (549 400	2,210,270	202,500	060,10	44,000	
193 193 Kan-days 193 191	(10)	30/ 14/4		4,439,059	0,040,073	T, 600, 329	3,598,172	127,098	4,275	39,496	п
Man-days 193	725,	378,726		3,564,769	8,680,115	1,395,236	3,406,363	52,506	13,648	9,71	
Kan-days 193	783,	372,549		3,162,859	7.699.347	1,316,707	3.039.160 a	28,581	3.570	3.257	
191	821.	318,779		3.225.238	8.231,91,3	1,183,189	2.888.108 b	21,382	1,3,656	2,735	
	780	320 265		238	2 050 5	1 328 ARE	2 067 1.10	21. 683	2007	11.10	
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174	010	214,325		δ, ζ,	6,500,535	T,479,290	3,260,577 d	27,035	5,708	2,544	_
194	1,021,	349,214		191	10,163,813	1,535,344	3,972,274 €	21,884	8,066	9,432	
194	1,156	351,130		3,571,795		1.680.211	h.659.538 £	39,286	3,276	*	
191	1,146.	500.067		3,703,717	10,21,6,301	1,681,792	5,125,620 0	50,580	*	*	
101	213	K22 380		3 075 875		ראכ ארא ר	1. 783 KOO h	K2 800	יל ע	c 3	
101	500	756,700		100000000000000000000000000000000000000	20010000	10,010,11	11 200,001,1	20,000	1000	k :	
TAT	1,500,	200,000		2,300,524	7,279 125c	T,5/2,4/1	5,17,903	37,350	10,225	*	
194	1,320,	626,568		3,382,378	9,602,447	1,790,633	5,639,097	23,233	5,202	*	
194	1,259,	319,830		3,409,360	9,641,708		5,130,772 1	28,335	7,704	*	
194	870,	511,400		2,618,620	6,578,335	1,405,854	4,338,959 1	12,760	16,320	*	
192	241,	94.975	159,007	163,139	179,851	189,672	174.893	1	655,000		1
193	159		173,473	141,786	167,115	232,734	127, 125	1	91.296	10,991	_
193	317	216,356	189,069	110.011	157, 395	179,021	192,922	75.51,2		52,50	2
193	607	1,97,966	81,135	198,801	166.621	369,938	210,515		•	121.19	14
193	536		652,057	187,972	180,559	361, 1,79	238,110	63.057		1)
	200	220 380	215 018	10 8K1	188 056	200 000	271. 722	180,020	80 618		
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	007	1000	200,379	253,092	122,504	372,014	305, (43		1	1	
	415,	200, 507	53,823	260,500	220,462	306,947	301,620	629,66	1	102,85	n
193	324,	289,478	85,174	172,241	199,661	314,676	222,001	1	1	ı	
193	359,	192,869	158,987	199,969	216,460	370,403	366,138	1	124,791	1	
194	362,	513,183	168,519	264,556	243,785	946,644	340,672	1	1	1	
194	300	533,736	172,773	242,536	248,127	704,868	337,776	1	1	1	
194	669	166,35%	. 1	266,983	201.307	330,995	375,568	1	1	ı	
101	S S	172,203		251,157	233,812	1,20,21,2	322,140	1	1	1	

Twenty-one Year Study of Anthracite, By Counties, 1949

	CARBON	COLUMBIA	DAUPHIN	LACKAWANNA	LUZERNE	NORTHUMBD.	SCHUYLKILL	SULLIVAN	SUSQUE.	WAYNE	RECION
1	303 71.0	286 o85	200 31,0	251, 706	351, 1,20	382 Rok	באא באו				371, 097
L.	557 51.3	186 871	10001	200 371	307 600	381, 607	522 RE3	187 007			100,00
,,	200 100	10000	1	10000	2000	10000	10000				100000000000000000000000000000000000000
97	227,701	242,959		335,494	200,230	256,500	495,037	105,862			360, (36
17	733.452	301,577	1	341.527	213.E62	521,504	1,083,979	1	1	1	350.891
18	560,379	559,832	1	1,53,201	332,182	1, 387, 468	508,101	•	ì	1	151,212
6767	708,894	1,380,732	1	777,718	266,497	2,600,245	752,121	1	1	1	485,980
100	8.30	22.05	12.36	12.65	11.20	9.1.8	77.01		2.85	1	11.26
18	11, 89		13,45	17.05	12.62	9.63	18.97	1	18.96	69,03	11,02
33	8.21	17.38	91-11	18.1.5	17,58	15.23	רבייןר	26.01		11,35	15,39
32	7,78	6.25	28.96	77.11	15.02	7.13	16,11		1	32.02	12.67
33	6.58	1	01.10	13.22	17,50	8.32	10.11	36.95		1	12.68
3	9.25	19.31	8,05	10.96	12.68	12.25	717.11	11.25	37.17	,	11,90
32	200	16.81	35.77	11.62	15.57	9.28	17.08	35.21		1	91,41
36	5,12		14.13	11.26	17.02	8.71	9.45	1	1	1	12,52
37	68.9	15.84	50.92	9.82	11.75	10.75	11,16	19.0h	1	102,94	11.52
38	7.66	10.74	28.112	15,49	13,25	9.87	14.49	1	1	,	13,45
39	8.52	15,68	16,19	14.26	13,11	8.76	9,35	•	22,91	1	12,19
070	7.60	6,21	16,96	10.64	11,68	7.53	10.76	1	1	1	10,72
170	9.45	7.29	15.11	12,08	11.11	4.73	10.73	1	1	ı	10.69
942	3,92	17,18	1	10,01	12,59	10,42	90°6	1	1	1	10.94
543	6.05	14.24	1	10,08	10.40	7.74	11.59	1	1	1	10,19
7776	8,30	8,00	21,51	66.6	6.83	8,92	6.2h	1	1	1	7.50
1945	76.4	11.49	1	8.78	5,88	8.57	69.9	18,56	1	1	6.82
946	14.99	11.84	1	8,16	8.23	7.63	7.34	25,11	1	1	7.88
746	3.03	7.98	1	7.39	10,83	7,26	2,66	1	1	ı	7.1
948	3.97	9.38	1	5.57	6.74	2,90	6,63	1	1	1	80.9
010	7.1.6	90 [300	0 10	0.1.1	מר ז				64 7

The year 1921 was selected as a normal year, in order that comparison might be made with the depression years that are made part of this report.

County	=	E	E	E	=	E		E	E
Lebanon	E	E	E	E	E	=	E	E	E
for	E	E	E	=	8	E	E	E	E
an-days	*	E	E	E	=	E	E	E	E
- 12	E	E	E	E	E	æ	E	E	E
1,612		1,773	4,856	4,593	5,654	2,940	9,881	1338	1,582
and	=	E	E	E	E	=	=	=	E
days	2	E	E	E	E	2	E	85	=
124	198	136	187	118	257	210	247	223	226
employes,		E		E	E	E	E	E	E
13	w	13	56	39	22	7	4	9	2
tons,	E	E	E	E		E		E	E
es 6,18h	13,927	17,330	30,716	35,641	21,981	21,550	37,690	21,982	21,763
Includes		×	E	R	E	E	E	E	E
1	1	1	1	1	1	1	1	1	1
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FATALITIES PER MILLION MAN-HOURS, BY MONTHS, FOR THE YEARS 1948 AND 1949.

	1949	1948
January	0,80	1.39
February	0.99	0,80
March	0.84	0.91
April	0.90	0.68
May	1,00	0.61
June	0.54	0.58
July	0.22	1.10
August	0,66	1.07
September	0.51	0.78
October	0.83	0.58
November	1,00	0.91
December	1.02	0.56
YEAT	0.80	0.85

Dist-	0	General	
rict	Operator	l'ana ger	Address
19	A. & A. Coal Co.	Henry Altmiller	Valley View, Pa.
2	Ace Coal Co.	Enrico Bevilacqua	Blakeley, Pa.
21	Adelphi Coal Mining Co.	A. Zifferblatt, Girard Trust Bld	g., Philadelphia, P.
6	Adelphia Coal Co.	Hopkins Morgan, 115 Church St.	
1	A. & F. Coal Co.	Rinaldo Alberigi	Jessup, Pa.
2	A. F. & L. Coal Co.	Angelo Falzone	Pittston, Pa.
27	Alarcon, Frank	Frank Alarcon	Keiser, Pa.
2	#Albanese Coal Co.	Angelo Albanese	Dunmore, Pa.
1-3	Alberigi Coal Co.	Rinaldo Alberigi	Jessup, Pa.
1Ļ 26	# Alden Coal Co.	John C. Haddock Albert Peca	Wilkes-Barre, Pa. Mahanoy City, Pa.
20	Alpec Coal Co. Altamont Coal Co.	Ralph Tanaglia	Frackville, Pa.
17	Anthracite Enterprises, Inc.		Nesquehoning, Pa.
2	A. & R. Coal Co.	Ralph Riccini	Jessup, Pa.
20	Atkins Coal Co.	Henry Atkins	Frackville, Pa.
27	Bainbridge, William		Orwigsburg, Pa.
21-25	Banks, Jos., Constr. Co.	Joseph Banks, Central Bldg.,	Wilkes-Barre, Pa.
22	Barzak Coal Co.	Anthony Barzak	Frackville, Pa.
	# B. & B. Coal Co.	John J. Boback	Shamokin, Pa.
23	Beadle & Rick	Mike Rick	Kulpmont, Pa.
16	Beaver Brook Coal Co.	S. H. Long	Beaver Brook, Pa.
26	Becker & Co.	John Becker	Mahanoy City, Pa.
19	Beckville Coal Co.	Lee Heffner	Cressona, Pa.
2	Beggin Coal Co.	Michael Beggin	Jessup, Pa.
19	#Bell Patterson Coal Co.	Ralph T. Lynch	Brockton, Pa.
-5-16	Bellevue Coal Co.	Robert E. Molan, N. Washington A	
22	Bender Coal Co.	John Bender	Connerton
10	Bernice White Ash C. Co.	William A. Monahan	Mildred, Pa.
20	Bernotsky Coal Co.	Joseph Bernotsky	Shaft, Pa.
12 26	Bird Mining Co.	Morgan Bird, Jr. John Biros	Plymouth
25	Biros & Co.	Oscar Bixler	Delano, Pa.
26	Bixler, Oscar Blaschak & Co.	John Blaschak	Valley View, Pa. Ringtown, Pa.
1		Domonic Blasi	Archbald, Pa.
2	Blue Flame Coal Co.	John Fanucci	Jessun Pa
25		Roy E. Blyler	Jessup, Pa. Valley View, Pa.
6	Boccoline Coal Co.	Frank Boccoline	Old Boston, Pa.
26	Boner & Co.	Ray Webb	Mahanoy City, Pa.
1	Booth, John, Inc.	Charles Booth	Carbondale, Pa.
21	Borelli Coal Co.	Orlando Trassatt	Minersville, Pa.
21	Bosack Coal Co.	Frank Bosack	Llewellym, Pa.
517	Boslego Coal Co.	Andrew Boslego	Kulpmont, Pa.
7.		L. T. Botscheller, 310 Oak St.,	Scranton, Pa.
27		Henry Bowman	Valley View
21	Branch Coal Corp.	P. J. Goodman	Llewellyn, Pa.
27	Branchdale Coal Co.	Lilet J. Butts	Branchdale, Pa.
23	Brass Coal Co.	Mrs. Anne Brass	Mt. Carmel, Pa.
26	Brehony & Co.	George Brehony	Frackville, Pa.
19 24	Brenier & Blew Contrg.Co.	Roger Brenier	Middleport, Pa.
18	Fridy, Inc.	Edward Bridy	Atlas, Pa.
26	Broad Mountain Fuel Corp. Brokenshire & Co.	Major Lee White	Junedale, Pa.
25	Brown, Robert	George Brokenshire Robert Brown	Mahanoy City, Pa. Mahanoy City, Pa.
27	Buck Run Colliery Co.	Allen J. Ryan	Puels Tun Do
1-2	Burke, Timothy, Inc.	Timothy Burke, 1022 Marion St.,	Buck Tun, Pa.
2	#Butler Stripping Co.	Edward Butler	Scranton, Pa. Peckville, Pa.
9	Butter Tub Coal Co.	John Kamor	Myoming, Pa.
21	B. & W. Coal Co.	Walter Wallacavage	Minersville, Pa.
27	Cano Coal Co.	Ray Cano	Minersville, Pa.
51		Ray Cano	Minersville, Pa.
9-10	Capone Coal Co.	Samuel J. Capone	Luzerne
19	Capparell Contracting Co.	S. J. Capparell	Hazleton, Pa.
16	Carbonizing Coal Co.	Ray E. Davis	Scranton, Pa.
13	#C. B. M. Coal Co.	W. E. Conroy	Plymouth, Pa.

Dist-		General	
rict	Operator	Manager	Address
22	Centralia Mining Co.	Elmer Christ	Centralia, Pa.
8	C. & G. Coal Co.	Daniel Constantino	Yatesville, Pa.
21	#Chornack Bros.	Steve Chornack	Gordon, Pa.
27	C. M. & Z. Coal Co.	Steve Carroll	Minersville, Pa.
19	Coal Rain Coal Co.	Ralph H. Peters	Scranton, Pa.
19	Colitz Coal Co.	Frank Colitz	Pottsville, Pa.
22	Columbia Coal Co.	Leon Mandell	Ashland, Pa.
10	Conlon Coal Co.	Paul J. Conlon	Hudson, Pa.
2	Consagra Coal Co.	Louis Consagra	Blakeley, Pa.
22	C. Q. & W. Coal Co.	Andrew Quiles	Frackville, Pa.
2	Costanzo Coal Co.	Philip Costanzo	Jessup, Pa.
12	Courtdale Coal Co.	Alex Seleski	Luzerne, Pa.
16	Cranberry Mining Co.	Albert Peca	Mahanoy City, Pa.
23	Cullen Coal Co.	John J. Cullen	Mt. Carmel, Pa.
25	Cutler, Steven	Steven Cutler	Goodspring, Pa.
24-27	Dancott Coal Co.	David Evans, 231 Rock St	., Shamokin, Pa.
27 .	Dando, Jos. P., Sr.	Joseph P. Dando	Llewellyn, Pa.
27	Dando & Novitsky	Joseph P. Dando, Jr.	Pottsville, Pa.
21	Dantas, Alfred	Alfred Dantas	Cressona, Pa.
24	Dark Corners Coal Co.	Peter Fedorshock, 445 S.	Shamok. Shamokin, Pa.
19	Darkwater Coal Co.	Thomas Newton	Pottsville, Pa.
26	Dasey & Co.	Michael Dasey	Tamaqua, Pa.
27	#D'Attilio, Camillo	Camillo D'Attilio	Minersville, Pa.
27	D. & D. Coal Co.	Angelo Declerico	Minersville, Pa.
1	DeAngelis Coal Co.	Joseph DeAngelis	Carbondale, Pa.
25	Deaven, David	David Deaven	Box 13, Pine Grove, Pa.
25	Deaven, Francis	Francis Deaven	R. D. 3, Myerstown, Pa.
27	Deitrick % Troup	Lewis Deitrich	Gordon, Pa.
26	Dern Coal Co.	Joseph Kluchinsky	Mahanoy City, Pa.
6	DeRoma Coal Co.	John DeRoma, 22 S.	Main St., Wilkes-Barre, P
1-12	Dewees Bros.	Richard Dewees	Kingston, Pa.
9	Dial Rock Coal Co.	Thomas R. Lewis	Wyoming, Pa.
24	Diminick Coal Sales Co.	Ferdinand Diminick	R. D. #5, Danville, Pa.
21	DiRenzo, Alfred	Alfred Digenzo	Minersville, Pa.
21	#Dowdentown Coal Co.	John Marnickas	Minersville, Pa.
10-14	Duryea Anthracite Co.	Charles Adonizio	R. D. #2, Wilkes-Barre, Pa
1	Dwonczyk Coal Co.	Joseph Dwonczyk	Peckville, Pa.
22	Dyszel Coal Co.	George Dyszel	Lost Creek, Pa.
24	D. & Z. Ccal Co.	Stanley Diminick	Box 118, Shamokin, Pa.
19	Eagle Hill Coal Co.	E. P. Whitby	Pottsville, Pa.
27	Ebert, George		R. D. #2, Hegins, Pa.
1	Eddie & Joe Coal Co.	Romaro Molinaro	Peckville, Pa.
20	Engle Coal Co.	Joseph Engle	Shenandoah, Pa.
5	Englewood Coal Co.	Russell Tatusko	Frackville, Pa.
25	Erdman Bros.	Guy Erdman	Valley View, Pa.
23	Exchange Coal Co.	Joseph Cerbaccio	Atlas, Pa.
2	Fabri Coal Co.	Richard Fabri	Jessup, Pa. Beaver Meadow, Pa
18	#Fairclough Mining Corp.	N. B. Fairclough	Beaver Meadow, Pa
21	Falls Coal Co.	John Zernheldt	Zerbe, Pa.
21	Farley & Laychack		. D. l, Pottsville, Pa.
21	Fegley & Tretter	Vincent Fegley	Minersville, Pa.
23	Fetterman & Co.	Arnold Fetterman	Mt. Carmel, Pa.
22	Fisher Coal Co.	C. Arthur Fisher	Orwigsburg, Pa.
5	Florine Coal Co.	Anthony Minichello	Old Forge, Pa.
24	Foieri & Louis		Box 223, Shamokin, Pa.
26	Forgotsch & Co.	Joseph Forgotsch	Mahanoy City, Pa.
10	Franklin Coal Mining Co.	Joseph Mayers	W. Pittston, Pa.
6	Fritz Bros.		ka. Ave., Dupont, Pa.
25	Fronk, George	George Fronk	Valley View, Pa.
1	F. & W. Coal Co.	Harry Farnetti	Jessup, Pa.
-2-3-26	Gasparini Stripping Co.	Gene Gasparini	Blakeley, Pa.
3.	Gateway Coal Co.	Charles Volpe	Dunmore, Pa.
21	Gauntlett, Roy & Co.	Roy Gauntlett	Zerbe, Pa.
7	Gaylord Coal Co.	Samuel Bird	Plymouth, Pa.
9	Genelow Coal Co.	Joseph Troyan	Wyoming, Pa.
		Williard German	Mahanoy City, Pa.

Dist- rict	Operator	General Manager	Address
1	(manforcoro Coal Co.	George Gianforcoro	Archbald, Pa.
20-22-26	Gilberton Coal Co.	Elmer S. Christ	Gilberton, Pa.
1	Gildea Coal Co.	John A. Gildea, 641 River St.	Scranton, Pa.
î	Gillen Coal Co.	Thomas Gillen	Carbondale, Pa.
6	Gillizzi Coal Co.	Anthony Gillizzi	Pittston, Pa.
19	Clacier Coal Sales Co.	William Grow	Cumbola, Pa.
3-7-11-12-			
13-14-16	Glen Alden Coal Co.	Henry A. Dierks, 16 S. River S	t., Wilkes-Barre, Pa.
16	Glen City Coal Co.	John Luciana	Bloomsburg, Pa.
5	G. & M. Coal Co.	George Maffei	Scranton 7, Pa.
2	G. M. A. Coal Co.	John Alfonse	Jessup, Pa.
21	Gontarchick Coal Co.	Michael Contarchick	Minersville, Pa.
25	Good Peoples Coal Co.	Harry Witmer	Lykens, Pa.
25	Goodspring Contracting Co.	Thomas George	Goodspring, Pa.
16	Gowen Coal Co.	Elmer Roth	Fern Glen, Pa.
20	Grachowski Coal Co.	Alex Grachowski	Shenandoah, Pa.
2 5	Gravine Coal Co.	Frank Gravine	Archbald, Pa.
	Gravity Coal Co. Greenwood Mining Co.	Don T. Davies	Avoca, Pa. Wilkes-Barre, Pa.
5 - 10-15 2	G. & S. Coal Co.	John S. Marshall, R. D. 2, Leno Giombetti	Jessup, Pa.
2	Guiducci Coal Co.	Andrew Guiducci	Peckville, Pa.
20	Gulbinsky Coal Co.	Julian Gulbinsky	Frackville, Pa.
6	Guzior Coal Co.	Barney Guzior	Dupont, Pa.
21	G. W. B. Coal Co.	Joseph Cavaletz	Minersville, Pa.
15-18	#Haddock Mining Co.	John C. Haddock	Wilkes-Barre, Pa.
26	#Hall & Co.	William Hall	Mahanoy City, Pa.
21	Hamilton Construction Co.	Frank Maurer	Port Carbon, Pa.
22	Hammond Coal Co.	R. L. Birtley	Girardville, Pa.
16	Harbon Coal & Contr'g. Co.	Joseph Harlam	Tamaqua, Pa.
20	Harris Coal Co.	Alex Harris	Shenandoah, Pa.
5-6	Harris & Walsh	Irving Harris, 37 Lacka. Ave.,	
9	Harry E. Coal Co.	Joseph Mayers	W. Pittston, Pa.
27	Hatter, Ernest	Ernest Hatter	Hegins, Pa.
19 22	Haven Coal & Supply Co. Hazle Brook Coal Co.	Chas. D. Manbeck C. A. Garner	Schuylkill Haven, Pa.
6	Heidelberg Coal Co.	John B. McDade, 1st Nat. Bank	Jeddo, Pa.
25	Hentz, Reuben	Barney C. Marshall	Hegins, Pa.
27	Hepler & Otto		Hegins, Pa.
25	Herb, Allen	Allen Herb	Valley View, Pa.
21	Herb, Austin, & Co.	Austin Herb	Valley View, Pa.
21	Herb & Reed	Roy Herb	Valley View, Pa.
21	Herman, Carl, & Co.	Carl Herman	Minersville, Pa.
25	Herring & Spancake	Lester Herring	Pine Grove, Pa.
25	High Test Coal Co.	H. L. Golden	Goodspring, Pa.
6	Hillside Coal Co.	Gene Popple	Avoca, Pa.
19	Hillside Coal Co.	Theodore Norvidas	Tamaqua, Pa.
22 25	Hill Vue Coal Co.	Lloyd Neumeister R.D. 1,	Ashland, Pa.
21	Hinchey & McGinley #Hoffman Bros.	J. F. Hinchey, Jr. George Hoffman, Sr.	Centralia, Pa. Frackville, Pa.
27	Holohan Coal Co.		Pottsville, Pa.
24	Hoover Coal Mining Co.	George Hoover Y. M. C.	A., Sunbury, Pa.
1-2-5-10-		0001 gc 1100 vc1 1	n., building, rus
11-12	Hudson Coal Co.	Edgar C. Weichel, 434 Wyoming	Ave. Scranton Pa.
19-25	Huss Contracting Co.	George Huss	Ringtown, Pa.
15	Hydrotated Anth. Fuel Co.	H. W. Hastie	Lattimer Mines, Pa.
23	Ibanez & Dallibrida	Fred Dallibrida	Keiser, Pa.
21-27	Indian Head Coal Co.	Louis J. Pagnotti	W. Pittston, Pa.
19	Indian Run Coal Co.	Edward Garote	Cressona, Pa.
20	Ivanowski Coal Co.	Walter Ivanowski	Shenandoah, Pa.
15 6	Jeddo-Highland Coal Co.	C. A. Garner	Jeddo, Pa.
6-8	Jenkins Coal Co.	Joseph Capone	Pittston, Pa.
27	#Jermyn-Green Coal Co. Joliett Coal Co.	K. A. Lambert	Pittston, Pa.
24	Johnson Coal Sales Co.	Louis Pagnotti Frank O. Johnson, 523 N. Marke	W. Pittston, Pa.
22	Jonathan Coal Co.	George Fleming	Ashland, Pa.
	Committee Cont.	oool for Lighting	nonzenu, rae

Dist- rict	Operator	General Manager		Address	
24-25	Jonathan Coal Mining Co.	Arthur P. Baugh, Jr	., 1416 Che	estnut St., Phila.,	- Pa
26	Jones Coal Corp.	John E. Jones		Pottsville, Pa.	
26	Jones, John, Coal Co.	John Jones		Mahanoy City, Pa.	
5	Junior Coray Coal Co.	Lindo Berrettini		Plains, Pa.	
26	Kadelock & Co.	John Kadelock		Delano, Pa.	
24	K. & D. Coal Co.	John Dietrich	Box 415,	Shamokin, Pa.	
5-9	Kehoe-Berge Coal Co.	John C. Kehoe, Jr.		Pittston, Pa.	
21	Keifer, Lawrence	Lawrence Keifer		Branchdale, Pa.	
23	Keiser, J. B., & Son	J. R. Keiser		Mt. Carmel, Pa.	
26	Kelly Construction Co.	Charles Mogish		Delano, Pa.	
3	Keyser Valley Coal Co.	Peter Brojack		Scranton, Pa.	
7	Kingston Excavating Co.	John B. Corgan		Kingston, Pa.	
12	Kingston Mining Corp.	Morgan Bird, Jr.		Edwardsville, Pa.	
20	Klimas Bros.	George Klimas		Shaft, Pa.	
27	#Klinger, Talbert	Talbert Klinger	R. D. 1,	Ashland, Pa.	
19	K. M. F. Coal Service	Joseph Kilousky		Middleport, Pa.	
8	Knox Coal Co.	Robert L. Dougherty		Wyoming, Pa.	
25	Kocher, Leon	Leon Kocher		Valley View, Pa.	
20	Kohinoor Coal Co.	Robert L. Birtley		Shenandoah, Pa.	
20	Kolis Coal Co.	Anthony Kolis		Shenandoah, Pa.	
20	Kovalick Coal Co.	Michael Kovalick		Shenandoah, Pa.	
21	Kozura, Mike	Mike Kozura		Minersville, Pa.	
27	#Kramer, Brown & Reibsane	Lester Reibsane		Tower City, Pa.	
21	#Kreiser Coal Co.	Frank Kreiser		Pine Grove, Pa.	
27	Kroh, Harvey	Harvey Kroh	R. D. 1,	Hegins, Pa.	
27	Kuntzleman, Osman & Klouser			Tower City, Pa.	
19	Kurchock Contracting Co.	Joseph Kurchock		Mt. Laffee, Pa.	
5	Lacka. Mng. & Constr. Co.	Joseph Grill		Old Forge, Pa.	
27	Lamar Coal Co., Inc.	C. S. Maurer		Donaldson, Pa.	
12	Larksville Coal Co.	Alex Seleski		Luzerne, Pa.	
24	Latsha Coal Co.	Daniel R. Latsha	Box 217,	Elysburg, Pa.	
16	Lattimer Coal Corp.	George M. Chisnell		Hazleton, Pa.	
21	#L. & C. Coal Co.	Joseph Lattore		Atlas, Pa.	
25	Legal Coal Co.	H. L. Golden		Goodspring, Pa.	
17-18	Lehigh Navigation Coal Co.	D. C. Helms		Lansford, Pa.	
9-10-11					
16-18	Lehigh Valley Coal Co.	K. F. Arbogast, 133	N. River S		a.
21	Lehman, Marlin	Marlin Lehman		Tremont, Pa.	
2	Lemencelli Coal Co.	Peter Lemencelli		Eynon, Pa.	
21	Lengle, Luther	Luther Lengle		Pine Grove, Pa.	
24	Level Coal Co.	Frank Appel	Box 45,	Shamokin, Pa.	
24	Little Chief Coal Co.	Ed. J. Nalewak, 807	W. Walnut	St., Shamokin, Pa.	
23	#Little & Shecora	Cornelius Little		Kulpmont, Pa.	
21	Live Oak Coal Co.	Peter Laychack	R. D. 1,	Pottsville, Pa.	
6	L. K. Coal Co.	John Kaminski		Avoca, Pa.	
5	Lockett Coal Co.	Walter Hughes		Old Forge, Pa.	
20	Locust Coal Co.	J. J. Crane		Shenandoah, Pa.	
26	Locust Valley Coal Co.	Herman Yaducofsky		Mahanoy City	
23	Logan Creek Constr. Co.	Dave Pizzoli		Atlas, Pa.	
19	Lohb Coal Co.	J. Harold Fisher		Pottsville, Pa.	
22	#Lombardo Coal Co.	Anthony Lombardo		Shaft, Pa.	
15	Lombardo & Puglia	Anthony Lombardo		Hazleton, Pa.	
24	Lower Region Coal Co.	Modes Foieri	Box 240,	Shamokin, Pa.	
27	Lucas, John	John Lucas		Branchdale, Pa.	
27	Lucas, Joseph	Joseph Lucas		Lykens, Pa.	
9	Luzerne County Gas & Elec.	Charles E. Warsaw		Kingston, Pa.	
6	Lynott Coal Co.	Joseph Lynott		Pittston, Pa.	
21	Macario, John	John Macario		Minersville, Pa.	
9	Maffei Coal Co.	George Maffei		Exeter, Pa.	
	Major Coal Co.	Adam Major		Avoca, Pa.	
9					
6 26	Maksymik & Co.	Stanley Maksymik		Shenandoah, Pa.	
6 26 27					

Dist- rict	Operator	General Manager	Address
9	Maltby Coal Co.	Joseph Troyan	Wyoming, Pa.
22	Mammoth Coal Co.	Joseph Mayers	W. Pittston, Pa.
25	Markson Coal Co.	Edwin A. Weyman, Box 103	Goodspring, Pa.
25	Martin & Keating	Leroy Martin, 200 Millcreek A	
3	Mascelli Coal Co.	Enrico Bevilacqua	Olyphant, Pa.
í	#Masters Coal Co.	Richard Masters	Kingsley, Pa.
19	Matleska Coal Co.	John Matleska	Minersville, Pa.
26	Matrishin & Co.	Andrew Matrishin	Barnesville, Pa.
24	Maurer Coal Sales Co.	Charles Maurer, Box 318	Shamokin, Pa.
26	Mazaika Bros.	Edward Mazaika	R. D. Tamaqua, Pa.
1	Mazzoni Coal Co.	Delmo Mazzoni	Jessup, Pa.
6	M. B. Coal Co.	Stanley Barovitz	W. Avoca, Pa.
2	M. & C. Coal Co.	Guido Castellani	Jessup, Pa.
27	McCarrick Bros.	John McCarrick	Tremont, Pa.
2	McConnell Stripping Co.	Robert McConnell	Scranton, Pa.
21	#McHale & Santor	James McHale	Port Carbon, Pa.
3	Meadowside Coal Co.	Joseph Rosetti	Durmore, Pa.
20	Melusky Coal Co.	Edward Melusky	Shaft, Pa.
2	Mid Valley Anthracite Co.	Joseph Rosetti	Dummore, Pa.
19	Millard Coal Co.	Joseph E. Millard	Minersville, Pa.
25	Miller, Daniel	Daniel Miller	Valley View, Pa.
25	Miller, Franklin	Franklin J. Miller	Ravine, Pa.
25	Miller, Robert	Robert L. Miller	Pine Grove, Pa.
27	Mine Hill Coal Co.	Chas. Martin	Minersville, Pa.
3	Minichello Coal Co.	John Hutchins	Peckville, Pa.
3 5	# Minichello, L. J., C. Co.	L. J. Minichello	Peckville, Pa.
26	M. & K. Coal Co.	Michael Kodis	Mahanoy City, Pa.
1	M. & M. Coal Co.	Michael Mikulak	Simpson, Pa.
3-5	Moffat Coal Co.	Earl Lamb, P. O. Box 486,	Scranton, Pa.
15	#Monitor Co., Inc.	A. E. Dick, Jr.	Hazleton, Pa.
15 2	Moosic Mountain C. Co.	Harry Giombetti	Jessup, Pa.
25	Moran, Francis	Francis Moran	Pottsville, Pa.
26	Morea Mining Co.	J. D. Connors	Morea, Pa.
21	Morgan, Irvin		3, Ashland, Pa.
25	Morgan, Roy	Roy Morgan	Valley View, Pa.
22	Morris Ridge Coal Co.	Joseph Martinez	Ashland, Pa.
1 5	Motley Coal Co.	Sandy Consagra	Mayfield, Pa.
5	Mountain Slope Coal Co.	Luke Keating	Old Forge, Pa.
19	Mountain Top Coal Co.	Ralph H. Peters	Scranton, Pa.
25	Moyer, Lloyd	Lloyd Moyer R. D. 3,	Pine Grove, Pa.
21	M. & S. Coal Co.	A. J. Schrader R. D. 1,	Minersville, Pa.
19	Mt. Laffee Coal Co.	Dave Smith	Mt. Laffee, Pa.
19	Musolino Contracting Co.	Anthony Musolino	Hazleton, Pa.
24	Mutual Coal Co.	Walter Krazick	Excelsior, Pa.
21	M. V. M. Coal Co.	Tony Valent	Palo Alto, Pa.
6	Namura Coal Co.	Charles Namura	Peckville, Pa.
7	Nanticoke Excavating Co.	L. F. Biscontini	Nanticoke, Pa.
6	Nardone Coal Co.	Louis Sarf	Pittston, Pa.
23	Natalie Coal Corp.	Peter Mucha	Mt. Carmel, Pa.
2-3	Nay Aug Coal Co.	Patrick Walsh	Scranton, Pa.
26	Noakes, Jeff	Jeff Noakes	Mahanoy City, Pa.
26	North Mahanoy Coal Co.	Earl McLaren	Mahanoy City, Pa.
1-3	Northwest Coal Co.	Albert Mascelli	Carbondale, Pa.
16	Norvidas & Palko	Theodore Norvidas	Tamaqua, Pa.
18	#Norvidas & Patrick	Leonard Patrick R. D. 3,	Tamaqua, Pa.
6-8	Number Nine Coal Co.	Joseph Mayers	W. Pittston, Pa.
8	Number Fourteen Coal Co.	Charles Gelso	Pittston, Pa.
24	Oak Coal Yard	Ernest Landis	Tharptown, Pa.
5	Old Forge Coal Co.	Albert Minichello	Old Forge, Pa.
27	Olenick & Sons	John Olenick R. D. 1	Pottsville, Pa.
2	Ondrick Coal Co.	John Ondrick	Clarks Summit, Pa.
27	Orchard Coal Co.	Ross Withelder	Zerbe, Pa.
27	Otto, C. M., & Son	Herman C. Otto R. D. 2	Hegins, Pa.
22	Otto Collieries Co.	Paul Williamson	Ashland, Pa.
25	Otto Miners	Norman R. Otto	Hegins, Pa.

Dist- rict	Operator	General Manager	Address
3-5-6	Panzitta Coal Co.	Dominick Panzitta	Pittston, Pa.
9-16	Payne Coal Co.	Bruce Payne	Wilkes-Barre, Pa
26	Peca Coal Co.	Albert Peca	Mahanoy City, Pa
27	Penag Coal Co.	Edward V. Twiggar	Shamokin, Pa.
1	Penbrook Coal Co.	Richard Fabri	Archbald, Pa.
19	Penna Coal Co.	Joseph Penna	Minersville, Pa.
3	Penn Anthracite Co.	F. D. Shoemaker	Scranton, Pa.
2-8	Pennsylvania Coal Co.	Ralph A. Lambert	Scranton, Pa.
27	Pernick, Frank, Jr.	Frank Pernick	Minersville, Pa.
2	Perry Construction Co.	Alex Fink	Cameratan Da
6	Petrillo Coal Co.		Scranton, Pa.
20	Petrock Coal Co.	Angelo Petrillo	Exeter, Pa.
		Peter Petrock	Shenandoah, Pa.
9-20-22-			
	Phila. & Reading C. & I.Co.		Pottsville, Pa.
21	Phoenix Coal Co.	R. E. Watkins, Box 630,	Pottsville, Pa.
26	Phoenix Contracting Co.	Bart Herrity	Ashland, Pa.
25	Pine Creek Coal Co.	Harrison Klinger	Spring Glen, Pa.
22	Pine Ridge Mining Co.	J. Klemen	Ashland, Pa.
1	Pioneer City Coal Co.	Angelo Giombetti	Jessup, Pa.
23	#Pioneer Construction Co.	Charles Steiner	Shamokin, Pa.
8	P. & J. Coal Co.	Joseph Sindaco	Pittston, Pa.
8	Plains-Hilldale Coal Co.	Carlo Saporito R. D. 2,	Wilkes-Barre, Pa
1	Ploskonka Coal Co.	Louis Ploskonka	Peckville, Pa.
3	P. & M. Coal Co.	Bruno Miletta	Old Forge, Pa.
21	Polinsky, John	John Polinsky R. D. 1,	Pottsville, Pa.
2	Pompey Coal Co.	Charles Pompey	Jessup, Pa.
22	Popple & Scatina	Peter Scatina	
25			Pittston, Pa.
10	Potts, Allen	Allen Potts	Pine Grove, Pa.
	Pringle Coal Co.	M. J. Luksic	Luzerne, Pa.
20	Pronio Coal Co.	Anthony Pronio	Shenandoah, Pa.
20	Pryzbilick Coal Co.	Joseph Pryzbilick	Shenandoah, Pa.
214	Quality Coal Sales Co.	Clarence Weimer Box 288,	Shamokin, Pa.
5	#Quinn & Walsh	Patrick Walsh 7th St.,	Scranton, Pa.
25	Raudenbush, Joseph	Joseph Raudenbush	Williamstown, Pa
22	Raven Run Coal Co.	C. A. Garner	Jeddo, Pa.
)-23	Reading Briquet Co.	T. H. Butcher	Mahanoy City, Pa
2	Red Creek Mining Co.	John Federowitch	Jessup, Pa.
2և	Reidinger Coal Service	Victor Reidinger	Paxinos, Pa.
L-25	Reilly, Chas. L.	Charles L. Reilly	Pottsville, Pa.
21	Reilly, Eugene, & Co.	Eugene Reilly	Minersville, Pa.
21	Reiner & Shallhammer	Raymond Reiner	Muir, Pa.
21	Renninger Coal Co.	Ted Renninger	Zerbe, Pa.
19	Repplier Coal Co.	A. F. Connell	Buck Run, Pa.
2	Reppiter Coal Co.	Primo Fidati	
	R. & F. Coal Co.		Jessup, Pa.
25-26	Rhoads Contracting Co.	C. E. Machamer	Ashland, Pa.
3-6	Rhonda Coal Co.	Ray E. Davis, Bowman Bldg.,	Scranton, Pa.
21	Rickert Bros.	Thomas Rickert	Tower City, Pa.
25	Rigdosh, George, & Co.	Earl Bush	Tower City, Pa.
27	Rizzardi Coal Co., Inc.	Arnold H. Rizzardi	Minersville, Pa
2	Rosetti Coal Co.	Ubaldo Rosetti	Jessup, Pa.
24	Rosini Bros.	Odone Rosini S. 5th St.,	Shamokin, Pa.
21	Rowbottom, James	James Rowbottom	Pottsville, Pa.
26	Royal Anth. Coal Co.	Roy Allen R. D.	Tamaqua, Pa.
21	Rushanan & Sons	John Rushanan	Minersville, Pa.
6	Russell Coal Co.	Stephen DuBernas	Old Forge, Pa.
9	R. & W. Coal Co.	Elwood Richards	Exeter, Pa.
26	Rymar & Co.	John Rymar	Exeter, Pa. McAdoo, Pa.
27	Sabadish & Cherrybon	Joseph Sabadish	Pottsville, Pa.
1	Sacco Coal Co.	Frank Sacco	Jessup, Pa.
			Minersville, Pa.
27	S. A. & J. Coal Co.	John Trassat	
19	Salem Hill Coal Co.	J. J. Crane	Shenandoah, Pa.
21	Salem, James	James Salem	Tremont, Pa.
1	Salvaggio Coal Co.	Sam Salvaggio	Mayfield, Pa.
23-25	Sanchez Construction Co.	Alonzo Sanchez	Minersville, Pa.
15		Thomas George, Jr.	Freeland, Pa.

Dist- rict	Operator	General Manager	Address
6	Saratore Coal Co.	Peter Saratore	Dupont, Pa.
6-8	Sarf Coal Co.	Louis Sarf	Pittston, Pa.
20	Sarra Coal Co.	Carmen Sarra	Frackville, Pa.
27	Saunders Coal Mining Co.	Salvey Saunders	Minersville, Pa.
25-27	Scheib & Leitzel	Floyd Scheib	Hegins, Pa.
27	Schneck Coal Co.	Clinton R. Schneck R. D. 1,	
25	Schneck, Thos.	Thos. W. Schneck	Suedberg, Pa.
21	Schrader Coal Co.	A. J. Schrader	Minersville, Pa.
25 5	Schumacher, J. E., & Son	John E. Schumacher Box 689,	Pottsville, Pa.
25	Schuster Coal Co.	Henry Schuster, 1021 S. Wyomin William H. Schwalm	ig Ave., Scranton, Pa
20	Schwalm, William, & Co.	Frank Seltzer	Valley view, Pa.
20	Seltzer Coal Co.	Edward Sergynsky	Frackville, Pa. Shenandoah, Pa.
25-27	#Sergynsky Coal Co. Shade, John	John Shade	. Valley View, Pa.
25	Shade, Lawrence	Lawrence Shade	Valley View, Pa.
24	Sharp Coal Sales Co.	Robert Sharp, 13 E. Commerce S	
21	Sherman Mountain Coal Co.	Harry Hartz	Tremont, Pa.
21	Silverton Coal Co.	Frank Shortino	Cressona, Pa.
26	Simoes & Co.	Manuel Simoes	Mahanoy City, Pa.
1	Simpson Coal Co.	Steve Yanchek	Carbondale, Pa.
26	Sincavage & Co.	Charles Sincavage	Mahanoy City, Pa.
26	Skytop Coal Co.	Daniel Pereira	Mahanoy City, Pa.
1	#Slenska Bros.	John Slenska	N. Scranton, Pa.
20	Slominsky Coal Co.		Shenandoah, Pa.
20	Snowshoe Coal Co.	Manuel Delpazo	Frackville, Pa.
3	Snyder Coal Co.	Nelson Snyder	Scranton, Pa.
2	Sobleskie Coal Co.	John Sobleskie	Jessup, Pa.
3	#Sproul Construction Co.	J. H. Sproul	Scranton, Pa.
14,	Stackhouse Coal Co. Standard Breaker Corp.	R. K. Bullock Lowther T. Brown	Shickshinny, Pa. Avoca, Pa.
24	Stanley Coal Co., Inc.	A. A. Graybill, 934 W. Pine St	Shamokin Pa
20	Stauffer Coal Co.	Nelson Stauffer	Shaft, Pa.
19	St. Clair Coal Co.	H. M. Smyth	St. Clair, Pa.
24	Steam Coals, Inc.	H. W. Lark Box 12,	Shamokin, Pa.
16	Steele, T. F., C. Co.	E. J. Gibbons	Junedale, Pa.
	Stevens Coal Co.	Joseph H. Jones	Trevorton, Pa.
27	Stiely, Wellington	Wellington Stiely R. D. 1,	Hegins, Pa.
6	Stodnick Coal Co.	George Stodnick	Dupont, Pa.
25	Stump, Franklin B.	Franklin B. Stump	Pine Grove, Pa.
27	Stutzman, Charles, & Co. Sullivan Trail Coal Co.	Charles Stutzman	Hegins, Pa.
9 24		Joseph Mayers	W. Pittston, Pa.
1	Sunshine Coal Co. Supreme Anth. Coal Co.	Ralph Steinhart John Hudson	Trevorton, Pa. Peckville, Pa.
ī	Surace, F. L.	Frank L. Surace	Childs, Pa.
19	Susan Coal Co.	John Watcher	Frackville, Pa.
14-22-	Susquehanna Colls. Div.		,
23-24	M. A. Hanna Co.	C. A. Gibbons	Nanticoke, Pa.
6	Sussex Coal Co.	C. E. Banker	Pittston, Pa.
21	Swatara Coal Co.	John Butcavage	Minersville, Pa.
2–6	Sweeney Bros.	W. H. Bircher 40 Poplar St.	, Scranton, Pa.
24	Swift Coal Co.	Adam Swift, 1100 Center St.,	Shamokin, Pa.
22	Swilp Coal Co.	Joseph Swilp	Connerton, Pa.
2	Swoyer Coal Co.	Harry Swoyer	Maplewood, Pa.
6	#Talamelli Coal Co.	Velio Talamelli	W. Wyoming, Pa.
19	Tamaqua Coal Pockets	Norman Warne	Tamaqua, Pa.
2	Tarrone Coal Co. Tetto Coal Co.	Anthony Tarrone Frank Tetto	Raven Run, Pa.
3	Throop Mining Co.	Angelo Falzone	Jessup, Pa.
í	Tolerico Stripping Co.	Constance Tolerico	Pittston, Pa. Simpson, Pa.
16	Trader Horn Coal Co.	Waldemar Hartman	McAdoo, Pa.
27	Troup, Warren	Warren Troup	Ashland, Pa.
21	T. & T. Construction Co.	E. J. Taylor	Tremont, Pa.
22	Tunnel Coal Co.	Frank Mucha	Frackville, Pa.
3	Turnpike Coal Co.	John Vitali	Durmore, Pa.

Anthracite Operators, General Managers, Mailing Addresses

Dist- rict	Operator	General Manager		Address
27	Valent, Anthony	Anthony Valent		Pottsville, Pa.
27	Valley Construction Co.	George Fronk		Valley View, Pa.
6-8	Valley View Coal Co.	John A. Hart, Scranton N.	at. Ea	nk Bldg., Scranton, P.
26	Valsuk & Co.	Sophie Valsuk		Frackville, Pa.
5	V. Coal Co.	Thomas Galbraith		Scranton, Pa.
6	Vigoline Coal Co.	Dominick Vigoline		Hughestown, Pa.
2	Village Slope Coal Co.	Louis Coccodrilli		Jessup, Pa.
5 6 2 2 2	V. & L. Coal Co.	John Vitroli		Jessup, Pa.
2	Vispi Coal Co.	Raymond Vispi		Olyphant, Pa.
21	Vsay, Frank	Frank Vsay		Minersville, Pa.
1	Waddell Coal Co.	Peter Brojack		Winton, Pa.
27	Walaitis Coal Co.	John Walaitis		Frackville, Pa.
6	Warnes Coal Co.	Joseph Warnes		Old Forge, Pa.
27	Wentz Partnership	Stanley Wentz		Marlin, Pa.
22	Wentzel Coal Co.	John Verbish		Gordon, Pa.
21	Wertz, Flmer	J. Harold Fisher		Pottsville, Pa.
26	Wessner Coal Co.	Lester Wessner	R. D.	Tamaqua, Pa.
9	West Exeter Coal Co.	Thomas R. Lewis		Wyoming, Pa.
10	West Side Coal Co.	Walter Songalia		Luzerne, Pa.
3	West Slope Coal Corp.	Harry Cimini		Scranton, Pa.
27	Whiteash & Dalsas	Paul Whiteash		Minersville, Pa.
21	Williams Stripping Co.	J. Harold Fisher		Pottsville, Pa.
19	Winton Coal Co.	Joseph Harlam		Tamaqua, Pa.
27	Woznicki & Berger	Stanley Woznicki		Pottsville, Pa.
21	Zerbe & Griffith	Elmer Zerbe		Zerbe, Pa.
22	Zimmerman Coal Co.	J. Zimmerman		Ringtown, Pa.
25	Zimmerman, Ray	Ray Zimmerman		Pine Grove, Pa.
25	Zimmerman & Wenrich	Martin Zimmerman		Pine Grove, Pa.

476 Operators

[#] Discontinued operation during the year.

RULES COVERNING BLASTING IN STRIP MINE OPERATIONS IN THE ANTHRACITE REGION

The following rules are published herein as general information. They are being widely adopted as standards for blasting in quarries and open pit mining operations throughout the country:

ACT NO. 172, APPROVED JUNE 27, 1917. SECTION 20 READS AS FOLLOWS:
"The use of explosives for the purpose of blasting in connection
with strip mining in the neighborhood of any public highway, stream
of water, dwelling house, public building, school, church, commercial
or institutional building or pipe line shall be done in accordance
with regulations prescribed by and under the supervision of the
Department of Mines,"

To meet the requirements of Section 20 of the Anthracite Strip Mining Act, the following rules shall be adopted:

- In no case shall the ground displacement be in excess of .03 inches at any dwelling house, public buildings, schools, churches, commercial or institutional buildings.
- 2. Where a blast is to be fired within 200 feet of a pipe line, the operator shall exercise such necessary caution as may be needed for the protection of the pipe line. The operator should also notify the owner of said line of his intention to blast as here described, giving a description of the precautionary measures that will be taken.
- 3. Blasting shall be prohibited in all cases where the effect of such blasting is liable to change the course or channel of any stream, without first obtaining a permit from the Water and Power Resources Board.
- 4. No blasting shall be done so close to the banks of a stream that the banks would be ruptured or broken, permitting the water to enter the strip mine pit.
- 5. Public highways shall be barricaded and guarded by the operator in all cases where such highway or highways are located within 800 feet of any point where a blast is about to be fired.
- Mudcapping will be permitted only where it would endanger the safety of the workmen to drill the rock to be blasted.
- 7. If mudcapping is necessary, a maximum of 10 pounds of powder may be used.

be used.	
8. All trunk lines of Primacord should lines of Primacord must be covered if they a buildings as outlined in Section 20 of Act N	re within 2,000 feet of such
April 8, 1948 APPROVED:	
(s) George A. Roos, Vice President Philadelphia & Reading Coal & Iron Co.	(s) L. Don Leet Harvard University
(s) Sylvain J. Pirson Pennsylvania State College	(s) John L. Romig Atlas Powder Company
(s) Edward G. Fox, Gen. Mgr. Philadelphia & Reading Coal & Iron Co.	(s) J. H. Horlick, Jr. Hercules Powder Company
(s) H. A. Lewis, Mgr., Technical Service Sec., E. I. duPont de Nemours & Co.	(s) George J. Clark Shen Penn Production Co.
(s) Evan Evans, President Lehigh Navigation Coal Co.	(s) William T. Dove American Cyanamid Co.
(s) Richard Maize Secretary of Mines	(s) David W. Cosslett Department of Mines

DISCUSSION OF THE VALUE OF ROOF BOLTS AS COMPARED WITH PROPS AND TIMBER, FROM A SAFETY POINT OF VIEW, IN THE NORTHERN ANTHRACITE FIELD OF PENNSYLVANIA.

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January 25, 1950

On November 21, 1949, we, the undersigned, were directed by the Honorable Richard Maize, Secretary of Mines, Commonwealth of Pennsylvania, to make a study of the suitability and the probable result of the application of the newly proposed "roof bolting system" in the Northern Anthracite Field. We submit herewith our findings and comments.

The Northern Anthracite Field is approximately 55 miles long and 5 miles wide at its widest point. It has an area of about 176 square miles. The coal seams lie comparatively flat in the upper Luzerne and Lackawanna County portion of the field, except along the outcrops and near local faults, where they pitch sharply. In the middle and southwesterly part of the Northern Field, the coal seams have a greater thickness and lie at depths below the surface ranging from less than 50 to more than 2,000 feet. A greater portion of the coal in this part of the field is found to pitch sharply because the anticlinals and faults are more numerous and the upthrows along the outcrop lines are more pronounced.

Briefly, the roof bolting system consists of the drilling of holes in the rock overlying the coal seam to a depth of about 6 feet and inserting therein an iron rod of the same length, having a diameter of 1 inch. The inner end of the rod is so constructed that the application of pressure expands it to the full diameter of the hole, thus securing it in place. A steel plate 8 inches by 8 inches is then bolted on the outer end of the rod, snug against the roof, thus anchoring the roof to the overlying strata. The principle of physics is mechanically sound, but the many theoretical assumptions that must be relied upon in the practical application of the device,

when used to support mine roof, make it impossible to determine, with any degree of certainty, the efficiency of such a device.

The system, although not new, has, according to press releases been introduced and advocated for general use in the Anthracite Region by the Federal Bureau of Mines.

Two installations have been completed for experimental purposes in the Northern Anthracite Field, one in Luzerne County and the other in Lackawanna County.

In the Luzerne County mine, the bolts were installed at two different locations. In one instance twelve bolts were installed between cross-timbers. The timbers, standing alone, afforded ample roof protection. In the other instance, three channel irons, serving as crossbeams, were held in place against the roof by twelve angle bolts, four bolts supporting each channel iron. Here again the bolt-supported channel irons were augmented by three sets of cross-timber.

Little, if anything, can be learned from this installation, because the cross-timbers used in conjunction with the bolts are, in themselves, sufficient to support the roof.

The installation in the Lackawanna County mine consists of 200 bolts. They were installed in a gangway that was driven during the year 1923. Approximately 23 props had been stood over the years in this gangway, not as a means of roof support, but rather to hold the rib in place. The roof in this gangway remained secure over a period of 25 years, but shortly after the installation of the bolts in 1919, a movement developed in the overlying strata. The roof rock broke around many of the bolts and in several instances the bolts were found to be bent, twisted and dislodged. In fact, the project was a complete failure. This statement should not be looked upon as meaning that the installation of the bolts was responsible for the collapse. It does mean, however, that the physical conditions encountered in this case, which are common throughout the entire Anthracite Region, were wholly responsible for the failure of the bolts.

The bolts were installed in an inactive gangway underlying, to the extent of about thirty feet (30'), an upper seam in which pillars were being removed. Pillars were not being removed directly above the bolted gangway, but such work was in progress 600 feet laterally therefrom. The removal of these pillars resulted in the development of a squeeze in the underlying seam, fracturing the intervening rock and extending to the bolted gangway, where it rendered useless the overlying rock for anchoring purposes. After the squeeze started, props were installed to assist in the control of the roof. This measure was effective in establishing a break line and thus arresting the movement of the squeeze.

The mine inspectors in whose districts the two mines are located, refused to approve the installation of bolts except in inactive workings, unless props or timbers were used in connection with such installations. The reason for their refusal to permit the use of bolts without props or timbers was twofold - first, their lack of confidence in the practicability of the system for use in anthracite mines, and second, the law on the subject, which reads as follows:

"The mine foreman or his assistant shall visit and examine every working place in the mine every working day while the men of such place are or should be at work, and shall direct that each and every working place is properly secured by props or timber."

If it could only be said that roof bolting is inadequate when exposed to some great force of nature, such as a squeeze or crush, that alone would not be so bad, but based as it is upon so many assumptions and theories, amidst so many unfavorable, concealed conditions, its usefulness as a roof support is so uncertain that it should never be used in the Anthracite Region where human life is at stake, except in conjunction with sufficient props or timbers.

There are still other features which tend to make the roof bolting system a menace. It is rigid and does not lend itself to the cushioning warnings given by props and timber - warnings which the practical miner has relied upon since the beginning of mining.

There is scarcely any problem in the mining industry which has received more consideration than that of roof fall injuries. Men practically fitted to analyze and discuss this matter generally agree that injuries of this nature do not occur because of the absence of an efficient system of roof support. Props, timbering, lagging and forepoling have been used since the beginning of mining and have rarely, if ever, been found inefficient.

Investigation of innumerable fatalities resulting from roof falls reveals, not the need for a new system of roof support, but rather the prompt application of our present system of timbering. This can best be accomplished by proper and efficient supervision.

Therefore, when under our present system of supporting roof, with our constant urging to have props stood promptly when room is available, that the number of roof fall injuries may be reduced, we are far from being successful, what can we expect in the event the roof bolting system is universally adopted - a system which will demand of the miner a far greater sacrifice of time and human energy to install? It is our unanimous belief that should the roof bolting system develop in the Anthracite Region, its fruits will be tragic for the miner.

Much interest was unduly aroused in the Anthracite Region recently over this new method for the prevention of roof fall injuries, when from time to time someone occupying an exalted position imprudently announced a discovery which "will bring about victory over the roof fall evil." We are of the unanimous opinion that there will follow, for those who allow themselves to be deceived, only cruel disappointment.

The means by which the number of roof fall injuries can be reduced in the Anthracite mines becomes obvious after one has investigated a sufficient number of such injuries. It is found in so many cases that the miner failed to stand a prop or timber when room was available, and that the supervising official failed to see that such prop or timber was stood. This is the greatest stumbling block with which we are confronted in our endeavor to reduce the number of roof fall injuries - a stumbling block that the roof bolting system will enlarge, because of the greater amount of time and energy necessarily expended in the installation of a roof bolt, as compared with that required to stand a prop.

We are amazed that anyone enjoying security from this dreadful roof fall evil would so completely disregard the security of the miner by advocating the general use of roof bolts instead of props, timber, lagging and forepoling. We can only feel that these advocates have been misled by the extravagant claims, publicly announced, for the proposed roof bolting system.

Our criticism is admittedly unusual and perhaps extreme, but so is the "roof bolting project" an unusual and an extreme menace, as the mining conditions in the Anthracite Region abundantly demonstrate. One need only consider that mining activities are carried on in six to twelve different coal seams, separated by rock strata of every description, varying in thickness from 10 to 250 feet. If we add to this our consideration of the anticlinals, synclinals, saddles, faults and slips in all of the coal seams where the whole mass is generally subjected to a slow constant crush, and then realize that the greater amount of the coal mined in the Anthracite Region comes from robbing sections, or sections affected by robbing, it should not be hard for the practical man to see the reason for our objection to the roof bolting system in the Anthracite Region, unless augmented by props or timber as provided by law.

The pressure of the great mass from the surface to the lowest coal seam, honeycombed as these seams are by mining, has caused innumerable fractures in the rock strata overlying the coal seams, and naturally as time goes on this pressure will become more pronounced and destructive, thus rendering the roof strata of little value for anchoring purposes.

We are in full accord with the letter written by Richard Maize,

Secretary of Mines, dated October 3, 1949, in which he directed the Anthracite Mine Inspectors to notify all operators that "under no circumstances may they experiment with this method of roof control (roof bolting) in places where miners are cutting, blasting or loading coal."

Likewise, the letter from Joseph J. Walsh, Deputy Secretary of Mines, dated August 29, 1949, in which he states, "*** I feel that we ought to be on our guard against thinking that a new discovery has been found which will bring about a reduction in the number of roof fall accidents. It would be imprudent to claim that this new discovery will bring about victory over the roof fall evil. Our prime concern should be, not with this new and untried method of roof support, but rather with the prompt and practical application of the method that has stood the test of time."

In conclusion, we wish to emphasize that it is our unanimous opinion that the "roof bolting system" should never be used for the purpose advocated, except in conjunction with sufficient props or timber.

- (s) James F. Munley
 Mine Inspector 1st Anthracite District
- (s) Daniel H. Connelly
 Mine Inspector 8th Anthracite District
- (s) Thomas M. Beaney
 Mine Inspector 11th Anthracite District

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DISCUSSION OF THE VALUE OF ROOF BOLTS AS COMPARED WITH PROPS AND TIMBER, FROM A SAFETY POINT OF VIEW, IN THE EASTERN MIDDLE, WESTERN MIDDLE AND SOUTHERN ANTHRACITE FIELDS OF PENNSYLVANIA.

Bv

G. E. Smith
Mine Inspector - 25th Anthracite District

T. A. Ryan Mine Inspector - 19th Anthracite District

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February 2, 1950

We have examined all known installations, proposed installations and roof conditions in representative mines in the area. We have discussed the matter with mining men we encountered, accumulating their opinions.

We have also taken into consideration the geologic structures of the region, methods of mining, timbering, blasting, together with the small amount of actual experience in roof bolting in the region.

Roof bolting experience being as limited as it is, a large portion of our account is based upon conditions, actual mining experience and opinion, as follows:

GEOLOGY OF THE FIELD

The Eastern Middle, Western Middle and Southern Anthracite Fields are subjected to lateral squeezing by a movement of the earth's crust, apparently from a southeasterly direction. The results of this thrust are apparent in the many synclines and anticlines throughout the region. The limbs of these synclines and anticlines are bedded on varying pitches, ranging from light to heavy pitches, some cases of overfolding, slips, underlaps, etc.

The tremendous pressures exerted upon the coal seams and the adjacent strata seriously affected the mining conditions throughout the region. Numerous slip-faults, roof bells, swells and pinches occurred, not only in the coal seams, but in the roof and floor materials. The coal seams, under this contorting influence, were crushed, this condition ranging from solid in the Eastern Middle to slightly crushed to pulverized in the Western Middle and Southern Fields.

It follows that since the coal seams were crushed, squeezed and pinched to varying thicknesses, the surrounding strata were treated likewise. The net results are constantly changing bed thicknesses, not only in the coal, but in the rock structures. We quote instances where the dividing strata between two seams enlarge from one foot to forty feet in a lineal distance of three thousand feet along the strike.

In addition, the breaking up of the strata allowed an inflow of surface water, which has created the additional hazard of water, mud and quartz seams at unknown locations and areas.

The rock strata, while well compacted and retaining some of its inherent cohesion, has been crushed in degrees governed by the original strength of the material in the bed, the bed thickness and the location with regard to the original thrust.

The conglomerates, generally thickly bedded, show large cracks at long intervals, said cracks remaining as water seams or filled with quartz or mud deposits. In some cases a layer of sand and sand pots are found immediately overlying the seam. This is true of the Lykens Valley Coal Beds in the Southern Field.

The sandstones, bedded in varying thicknesses, are blocky, seamy, and considerably fractured. Fracture lines range from hairline cracks to large fissures, which may be filled with sand, quartz, or finely crushed coal. In the extreme Southern Field, the sandstones are often broken into small pieces, much as shale.

The slates have been damaged according to the original elasticity of the material. In spots they are almost completely crushed, offering a curly, twisted formation, having no bed strength or uniformity. In other places, the slates are bedded in thin seams, which were elastic enough to absorb the bending to which they were subjected, but which, when exposed, succumb to the internal stress and split off continuously in thin, jagged layers of many sizes and thicknesses.

The shales, where encountered, are similar in action to the slates, except in the extreme south of the region, where they have lost all trace of smooth bedding and are completely shattered.

Mining developed along the limbs of these synclines, and through and around the many faults, has necessarily been subject to increasing depth and constantly changing conditions. As additional depth is reached, increased pressures are noted in roof, pillar and floor. This is a combination of natural earth weight and gas pressure. It has been established that entire synclines have been rocked from side to side by pillar robbing on both limbs at consecutive levels. Squeezes, floor heaves and pillar failure over large areas are common, not only in robbing but in first mining. Sloughing of pillars because of roof weight, and bursting of coal from pillars because of gas pressures are not uncommon. Pressures transmitted from actively mined seams to small vein or rock entries through the intervening strata are usual.

MINING AND TIMBERING

The Anthracite industry, through over 100 years of effort, has developed systems of mining and timbering adapted to the geological features of the area. Aware of the economic faults of coal entries, particularly in thick seams, the trend has been to rock entries, with the only timbering in the coal seams that which is required in the actual mining of the coal, and that of short life. At present, experiment in mining entirely by remote operation from rock gangways is under study. The greater pressures encountered in the deeper mining are now making timber in the rock gangways necessary.

Roof conditions, from massive sandstone and conglomerate to finely fractured shales, are found. Pitches, in any degree from horizontal to vertical, are found. Coal seams range from two feet to over one hundred feet in thickness. Coal strength varies from hard and strong to finely pulverized and free running.

Wide work, where any length of life is contemplated, such as haulageways, travelingways, or airways, has been found wanting, both in safety and economy. In such excavations, a minimum width in accordance with clearance requirements is used, thus offering less roof exposure and a smaller ultimate arch.

In chamber, breast or pillar work, where short life and maximum coal extraction is the object, timbering, width, and method are regulated by the strength of the coal seam and roof, and by the pitch. The many varied conditions have been met by as many methods, each designed to provide the best in roof control, ventilation and safety to the workmen.

A system of timbering, using wooden timber, has been devised to accompany each system of mining. Single prop, post and bar, three and four piece double sets, jugulars, coupling sets, lagging, forepoling and mudsilling are a few of the arrangements. Considerable skill and practice, but only a few simple tools are required to install this timber. All have been successful in the protection of life when used at the proper time and in sufficient quantity. Protection is afforded the workmen by support of the loose material on ribs and roof, and by the warning given in advance of any major collapse or failure. Such timber is rigid enough to provide the required strength, flexible enough to absorb slight changes which occur during the adjusting period after blasting, and yet strong enough to offer sufficient warning of major movement. Such timber is also readily replaceable,

In the areas of permanence, such as slope or shaft bottoms, where squeezes are not anticipated, steel and concrete are often used. If, however, as sometimes occurs, a squeeze affects such timbering, replacement is extremely difficult and costly.

BLASTING

Blasting practices in the area described do not in any way add to the security and stability of the roof.

In the mining of the various seams of coal, local conditions prevent the use of mining machines. Many attempts have been made to use cutting or shearing machines, but all have met questionable success. Coal or rock must then be blasted from the solid. The types of explosives necessary, with the quantities loaded, create heavy disturbances in the surrounding strata. The resultant shatter cracks, which may or may not be visible, but nevertheless are present, are the first step in the breakdown of the roof structure.

The rock gangways, tunnels, slopes, etc., either parallel to or across the strike, are even more subject to blast damage. With the advent of mucking machines, fragmentation became essential to success. The practice of detonating an entire timed face round at the same instant led to additional overloading, particularly in the wedge or opening cut. This combination of circumstances has resulted in far more shattering and damage to the roof arch than is normal. Additional scaling is necessary, and cross breakage through the normal bedding is evident.

THE PRESENT AND PROPOSED STATUS OF ROOF BOLTING

The first known application of roof bolting in its present form was found at the Hazleton Shaft Colliery of the Lehigh Valley Coal Company. This installation was made about 22 years ago. In the Third Level Wharton Vein Pumphouse, off #40 Slope, three rows of eight bolts each were installed, spaced on 3' centers along the strike and 5' centers up the pitch. The purpose was the anchorage of a 6" thick slab of sandstone to the main sandstone roof which is massively bedded. This slab had apparently been loosened from the main roof by the heat from the steam pumps. This installation was a success, although a doubt exists whether any support was necessary, or whether it would have been better to take down the slab.

Another application at this same mine was recently installed at the Fourth Level Buck Mountain overcast. The roof at this point is strong gray sandstone, bedded in layers three feet thick. The plan was to tie the layers of sandstone together, to prevent slabbing when the roof was blasted to provide headroom for the overcast. This was successful, although it is probable that more credit for the success is due to good line drilling than to the bolting.

A third application, tried for the purpose of preventing overbreakage and shattering of roof during the excavation of a skip on the Fourth Level at 440 Tunnel to provide room for a turnout met with no success. Fifty-two bolts were placed in pairs along the 12' wide tunnel before blasting off the additional 6' skip. This plan failed. The rock broke over and around the bolts, leaving them exposed for lengths of 6" to 2'. These bolts have been cut off or bent over and the turnout is being timbered with steel crossbars on steel legs, as was originally planned.

The next application discussed is the Porter Tunnel of the Philadelphia & Reading Coal & Iron Company, in Porter Township, which was attempted
and discontinued in 1949. Porter Tunnel is driven into the south slope of
Big Lick Mountain, beginning in the Nauch Chunk red shale, thence through the
conglomerates and the coal measures. The roof bolting attempt was made in the
red shale. The tunnel was timbered through the wash and into the shale with
12" x 12" wood three and four piece sets for 480'. The management then decided to proceed without timber. After about 150' had been driven thus, the
inspector, on a regular inspection, stopped work at the face, due to insecurity of the roof, and ordered the bad roof taken down or timbered.

It was decided by the management to install roof bolts. When material had been produced, bolts were installed, under the supervision of the U.S. Bureau of Mines. The development then proceeded. Your inspector observed conditions frequently, and finally, accompanied by two other mine inspectors, stopped the work. Areas considered too dangerous for workmen were ordered timbered. Steel cross timbers and lagging were installed and the tunnel is proceeding in normal fashion.

The committee feels this was a failure for the following reasons:

- Roof bolts could not be placed within 20' of the face because the rock peeled over and around the bolts, leaving the bolt and washer hanging in the air. This was especially true when the face cut was blasted.
- In several spots the original washers were replaced by pieces of steel rail, then later by pieces of tie as the rock continued to break around the bolt.
- It was necessary to scale rock down between the bolts at frequent intervals.
 - 4. The rock did "pop" around the bolts, leaving them exposed.
- Large pieces of rock, of unknown thickness, when sounded, gave off hollow sounds, and tested loose by the vibration method, indicative of insecurity.
- The rock had no regularity of bedding, contained water and mud seams at unknown intervals.

- This committee found loose rock, previously bolted, which was ordered taken down at once.
- δ_* No definite knowledge as to the security of anchorage of bolts existed.
 - 9. The tunnel was unsafe for workmen.

During this experiment, 459 bolts from 51 to $7\frac{1}{2}$ long were installed in 614 lineal feet of tunnel. The bolts were spaced on 31 centers, lineally, and grouped 3, 4, or 5 across the roof as it was judged necessary. The bolts were anchored with a split rod and wedge, and were capped with 8^n triangular plates.

At the #U Shaft, Lansford Colliery, of the Lehigh Navigation Coal Company, a small section of roof has been bolted. On the Sixth Level, in the area within the shaft pillar, bolts 6' long have been placed on 5' centers, three to a row across the gangway roof. This Skidmore Gangway is driven for the purpose of mining the Mammoth Seam overhead, with, of course, no mining contemplated within the shaft pillar. Mining is planned by means of rock holes, drill heading in rock, etc. From the point at which the gangway leaves the shaft pillar, bolting was discontinued and conventional 3-piece sets were installed. The management is aware of the probable dangers of roof bolting where the Mammoth Seam will be robbed overhead.

The roof of the Skidmore Seam is good at this point. It is anticipated that the 15 bolts installed at this time will be successful. It must be stated that no timber other than a single prop on the hanging rib would have been installed here.

The roof consists of a strong sandslate 12" to 2h" thick, then 26' to 28' of massive sandstone to the Mammoth Seam. This strong sandslate is about 300 lineal feet, and has deteriorated to a curly slate, of unknown thickness, having no solidity or bedding, which requires timber immediately upon excavating.

The management at the Philadelphia & Reading Coal & Iron Company's

Locust Gap Colliery has proposed roof bolting in the Fifth Level haulageway

to the new place from the West Spring section. This haulageway is composed

of Cangway 253 in the Skidmore Seam and Cangway 313 in the Seven Foot Seam.

Both seams average2' in thickness, pitching an average 40 degrees.

The Bottom Split seam overlies the Skidmore at an interval of about 40' and has been robbed. The interval between the Skidmore and the Seven Foot is 20'.

The roof structures over these seams are similar, varying from a rubbery, fairly strong sandslate 12' thick, bedded in layers ranging from 6" to h' thick, to a brittle slate, laminated in thin layers, marked by irregular fractures and fine quartz seams. The roof has been extensively damaged over most of the area, by temperature changes, and heavily in spots by an apparent transfer of pressure from the Mammoth Seam, possibly due to partially robbed and lost pillars. In a few spots the roof stands safely without timber. Throughout most of the haulageway timbering is necessary, and will, in our opinion, continue to be necessary.

The management at the Knickerbocker Mine of this same company, near Nahanov City, had also proposed roof bolting in four gangways, as follows: seeking to eliminate timbering and cut down on the size of the opening needed. They have also used bolts at a fan installation along a rock gangway.

In the #4 Tunnel East Rock Cangway 17 bolts were installed in addition to props on the high side. Additional room has been made at this point to allow the installation of a fan. No timber had previously been used. The rock was strong, but the bolts were placed for additional security. No evidence exists that they were needed, or that they assist in roof support in any manner.

In the Buck Slope, $2\frac{1}{2}$ Level, E. Rock Gangway off #21 Tunnel, bolting is proposed. The entry is excavated through sandstone with heavy quartz seams, about 35' under the bottom split seam, which averages 7' thick. Three piece timber sets are placed on the advance on 6' to 8' centers. The rock is hard but brittle and due to the brittleness and quartz seams is unpredictable and subject to fracture,

It is possible that numerous bolts would provide safety on the advance and eliminate the need for timbering. However, when the coal overhead is robbed, as is customary, the rock gangway receives damaging pressure, which causes roof and rib fracturing, as is apparent from #1 to #9 Rock Holes, where robbing has been completed.

In the East Rock Cangway, $2\frac{1}{2}$ Level, 30' under the Buck Mountain Seam, which is 12' thick, the gangway is driven through good strong sandstone. Three piece sets are placed on 8' centers, and over a long area show no sign of damage by rock failure, although the coal overlying has been robbed. At only a few spots were small pieces of loose rock detected. It is conceded that under such a condition roof bolting might be a success.

In the Yatesville Basin Slope, #25 Tunnel E. & W. Rock Cangways under the Buck Mountain Seam, bolting is also proposed. These gangways are driven in seamy, blocky slate of brittle texture, bedded in small layers, and are timbered throughout. The slate offers neither assurance of secure anchorage nor beam strength which would permit the use of bolts. Further complications are added by the occurrence of a seam of coal 12' above the high rib of the gangway.

The Locust Coal Company had expressed an interest in roof bolting.

At the time of our visit, the mine superintendent informed us that they were
no longer interested. We did, however, examine the Sixth Level of the

Packer #2 Mine, where the strata are cut across the basin, in order to get a
picture of the roof structures in this valley.

The roof overlying the coal seams, generally thick beds of finely laminated slate, brittle and broken, offer no promise of success or safety for bolting. Above these slates is bedded soft sandstone. The rock gangways, driven in the sandstones, must also be timbered throughout.

The security of the roof is also impaired by pressures due to depth below the surface, inherent gas pressures which occur in the rock as well as in the coal, pressures due to robbing and the general instability of this whole basin, which has been rocked from side to side throughout the years.

In order to complete the study, we selected the mine of the Phoemix Coal Company, at Phoenix Park, as a sample of the Southern Field. The management stated that they are not interested in roof bolting, but are interested in roof control by proper mining methods, widths and timbering.

The seams of coal at this mine, in which all entry work is done in

coal, are highly gaseous, and are subjected to intense pressures, which are apparent in roof breakage, rib sloughing and floor heaving. These pressures are apparently the result of gas and depth pressures. The roof structures are generally 3' to 10' of curly brittle slate, in which roof bolts would have no chance of success whatsoever. In only one, the Middle Split, the roof is of fair sandstone. In all, timber and lagging are required to confine the ribs.

ROOF BOLTING THEORY

The theory of roof bolting, as expounded by representatives of the U.

S. Bureau of Mines, is based upon the strength of a beam of laminated construction, tied together with bolts, or bolts with light crossbars suspended. This beam, immediately over the excavation, is expected to support the loose material up to the natural arch, above which the pressures are expected to be transmitted to the rib. A beam of this type, to have strength, must have continuity in all its members.

A second theory, advanced by some of the mining men, who have expressed a desire to use roof bolts, offers the idea of anchoring layers of fragile material to more massively bedded material above. The plan has been suggested for thin seam gangways, or rock gangways driven under the seam to be mined.

FINDINGS

Our observations and study of this matter lead us to believe that the following statements are true:

- 1. The theory of beam strength is without foundation in this region. The original damage to the geological structure, damage accruing from blasting, squeezes, gas and depth pressures, together with the shifting of strata caused by pillar robbing, distinctly removes such a probability. Continuity of structure does not exist. In addition, we find that knowledge is not available as to the strength of such a beam, the weight of the material to be supported up to the natural arch, or the size of the natural arch in the varied materials. We are aware that in some cases no natural arch exists, since breaks extending to the surface are common.
- Positive knowledge of the firm bolting of such a beam is impossible, nor do we believe that such a beam can be constructed where one side (the upper) of the beam is not accessible.

- 3. The plan of anchoring layers of fragile rock or slate to other more heavily bedded layers is subject to many opportunities of failure.

 The anthorage cannot be established, except by constant mechanical testing.

 Even if this were done, failure of anchorage due to mud seams, cracks, roof faults or squeezes could occur between tests. We call attention to the fact that we are in the midst of changing conditions in all our work.
- 1. No provision has been made to secure ribs, either in pitching or flat work. In pitching seams, ribs must be securely held in place, in order to protect means of ingress or egress, ventilation, etc. In spite of or during regular timbering, men have lost their lives because of rib runaways. In addition, in deep and gaseous mines, regardless of pitch, rib pressures are great, and ribs, if left unconfined, will slough away or even bump off with violence. It is understood that roof arch, where it exists, is based upon width of opening. If ribs fail, increasing width, the arch increases proportionately, with consequently increasing load upon timbering. We are certain that bolting will not confine coal ribs or coal roof.
- 5. The comparative work required, plus the additional equipment, time, etc., in placing roof bolts, as compared to conventional timbering, leads us to believe that we would have less roof control efficiency at the working face. The necessity for training a great number of men in new techniques, particularly in testing and observation, would be conducive to lesser safety than our present instantly visible timbering failures.
- 6. The additional drilling required, either in roof rock or coal, would increase the exposure to dusts, producing respiratory diseases, particularly in pitching workings, where water cannot easily be conducted to the face.
- 7. From the meager figures now available, we see no economic gain by converting to bolting. Costs of material, installation of airlines, water lines, equipment, drilling time, etc., are unavailable to us.
- 8. We believe that the only feasible application in this area lies in the use of bolts, in addition to all of the regular timber, in heavy pitch, full gob breast work. It is possible that bolts placed in the roof over the

gob may temporarily support loose flakes of rock until the gob coal has been loaded out. If so, a cleaner product could be loaded at the battery with less blasting than is normally required.

9. Such bolts, with almost the entire bolt unavailable for inspection, are subject to rust, especially in wet conditions. No knowledge of the extent of such deterioration would be possible until failure.

Conclusion

We conclude that in the region described herein, no additional safety can be achieved by the substitution of roof bolts for the present standard timbering. We see no objection to the use of bolts where no timber is normally used, or in addition to the regular timbering, provided that the regular timbering standard is not relaxed as the result of bolting.

We also see no objection to the testing of such a method, if human life is not endangered in such test. We point out, however, that in such changing conditions as exist, a test in one area cannot be applied universally.

We also believe that if the time and effort now being spent to promote roof bolting were spent to further the efficiency of application of our present time-tested methods, additional safety would accrue. Accidents due to timber failure are the rarity, those due to lack of timbering are the rule.

We wish to express our appreciation to our Department Heads for the privilege of serving on this committee, and for their advice and guidance.

We acknowledge the courtesy of the various coal company officials with thom we came in contact during our investigation.

Very truly yours.

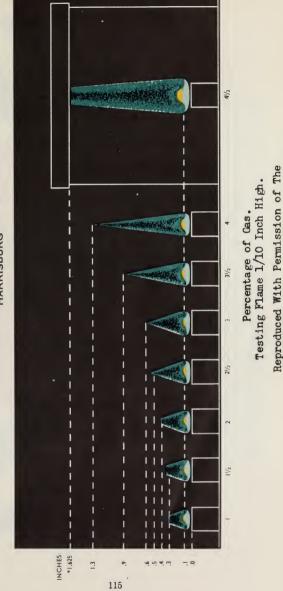
(s) G. E. Smith
Wine Inspector - 25th Anthracite District
(s) T. A. Ryan
Wine Inspector - 19th Anthracite District
(s) W. J. Clements
Wine Inspector - 17th Anthracite District

Ber

REPORT COVERING MINES EMPLOYING FEWER THAN FIVE PERSONS, BUT NOT FEWER THAN TWO

Dist-	Number of mines	Number of employes all mines	Aggregate number of man-days worked	Total production all mines	Fatal acci- dents	Non- fatal acci- dents	Production per fatal accident
1	17	49	3,577	11,875	_	_	_
1 2 3 5 6 7 8	6	17	1,921	5,948	_	ī	_
3		11	1,705	3,783	-	ī	-
5	3 8 8	21	2,217	5,956	-	-	-
6	8	28	4,760	9,825		-	-
7	-	-	-	-	-	-	-
9	_				_	-	Ī
10	_	_	_	_	_	_	_
11	-	-	-	-	_	-	_
12	_	-	-	-	-	-	-
13	-	-	-	-	-	-	-
14	_	7	404	3 006	-	-	-
15 16	2 4	10	1,240	1,226 3,324	-	-	-
17	4	10	1,240	2,324		-	
18	_	_	_	_	_	_	_
19	79	248	53,320	127,290	1	10	127,290
20	43	147	27,636	65,571	-	13	-
21	75	255	53,040	159,120	1	10	159,120
22	109	396	89,100	150,708	1	15	150,708
23 24	93 162	323 514	51,680 88,760	165,174 234,387	2	5	117,193
25	199	782	124,478	371,033	í	15	371,033
26	89	232	48,462	78,632	_	2	-
27	173	585	97,885	291,784	-	7	_
	1,070	3,622	650,185	1,685,636	6	84	280,939

COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF MINES HARRISBURG



U. S. Bureau of Mines.

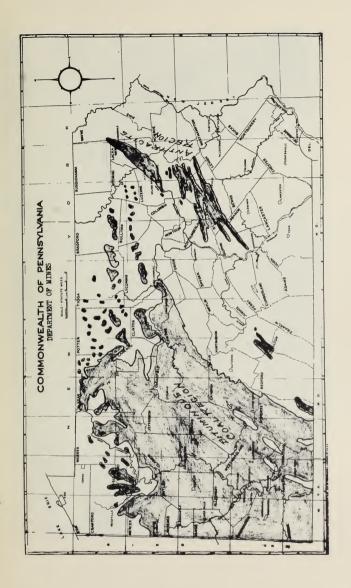
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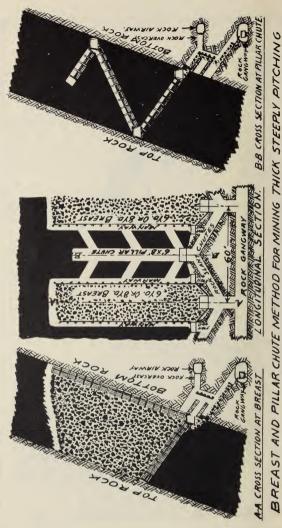


RECOMMENDED FOR USE IN ANTHRACITE MINES

the Bituminous coal mines of Pennsylvania. The color within the ellipse is red, by 10" in the center, has been recommended by the Secretary of Mines for use in This danger sign, having overall dimensions of 24" by 10", with an ellipse 14" and the diagonal spaces outside the ellipse are alternately colored white and black. The width of each diagonal space is 12".



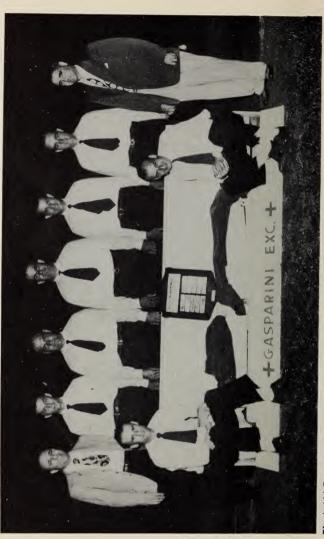




MAMMOTHVEIN, FROM ROCK GANGWAY AND ROCK CHUTES.



A Group of Mine Workers About to Enter the Mine



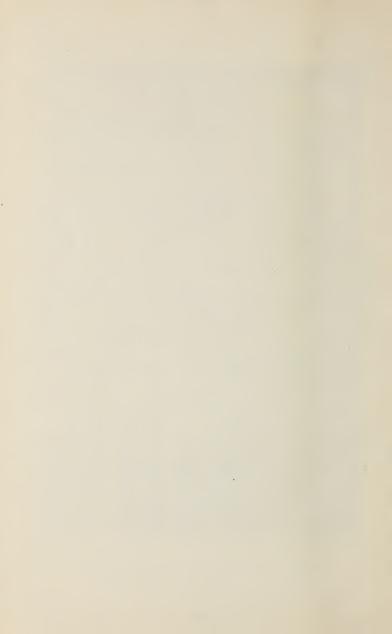
First Aid Team of the Gasparini Excavating Company, winners of the 1949 Contest. Reading from left to right: Standing: Nicholas Rock, Instructor, Edward Grestowic, Joseph Scagliotti, Leo Turissini, Joseph DeCosimo, Albert Baldan, Gene Casparini, Operator. Seated: Stanley Greenda & Ello Brumori.





I N D E X

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PRODUCTION:	of coal, how shipped to market, amount sold to local trade, used at colliery for steam and heat, explosives, days worked, employes, fatal and non-fatal (60 day disability or more) accidents, man-days, by inspection district.	1
	(Deep mined, Stripping and bank) and employes, by county	2
	Total production, washery and stripping production, employes, fatalities, production per fatality, fatalities per million tons, and number of inspectors, 1870 to 1949, inc.	3-4
	of coal, how shipped to market, amount sold to local trade, used at colliery for steam and heat, explosives, days worked, employes, fatal and non-fatal (60 day disability or more) accidents, by operator, for each inspection district	5-62
	Operators producing 10,000 tons or over, in order of their production $% \left(1,000\right) =0$	63-64
Employes:	Inside, by classification Cutside, and total number, by classification	65 66
ACCIDENTS:	Fatal, name and address of victim, name of company, colliery or mine, date of accident and cause of injury	67-70
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	Fatal, inside, outside, and total number, production per fatal inside and production per fatal inside and outside, by operator	73
	Fatal, by months, 1940 to 1949, inclusive	74
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